AC.95.

1953

VICTORIA

BUREAU OF HYGIENE & TROPICAL DISEASES
5 NOV 1954

DEPARTMENT OF HEALTH

THIRTY-FIRST REPORT

OF THE

COMMISSION OF PUBLIC HEALTH

TO THE

MINISTER OF HEALTH

LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE
LIBRARY
NOV 1954

By Authority
W. M. HOUSTON, GOVERNMENT PRINTER, MELBOURNE.

8938/53.

WELLCOME INSTITUTE
LIBRARY
Coll. welMOmec
Cal. f
No. Ann Rep
WA28
.KA8
V64
1953

22501299092

COMMISSION OF PUBLIC HEALTH.

Kevin Brennan, M.B., B.S., D.P.H., Chief Health Officer (Chairman).

Walter Ernest Summons, O.B.E., M.D., D.P.H.

Frank Victor Gordon Scholes, C.M.G., M.D., F.R.A.C.P., D.P.H.

Cr. Edward Charles Rigby, C.B.E.—Representing Metropolitan Municipalities.

A. M. King, Esquire, O.B.E.

Cr. R. G. Hoban, LL.B. (Kilmore Shire)—Representing Shires other than Metropolitan Municipalities.

W. B. Monteath, Esquire—Representing Cities, Towns and Boroughs other than Metropolitan Municipalities, to 23rd March, 1953.

Cr. T. R. Flood, J.P.—Representing Cities, Towns and Boroughs other than Metropolitan Municipalities, from 24th March, 1953.

CONTENTS.

PAGE

REPORT OF THE COMMISSION 7

DIVISIONAL REPORTS—

1. Report of the Director of Tuberculosis 15
2. Report of the Maternal and Child Hygiene Branch—
    - (a) Maternal, Infant, and Pre-school Service 31
    - (b) School Health Service 49
    - (c) School Dental Service 68
3. Report of the Industrial Hygiene Division 70
4. Report of the Engineering Division 74
5. Report of the Venereal Diseases Division 78
6. Report of the Medical Supervisor, Poliomyelitis 80
7. Report of the Government Chemist 82
8. Report of the Public Health Bacteriological Laboratory 84
9. Reports of District Health Officers 85
10. Report of the Food Standards Committee 95

APPENDICES—

A. Graphs showing Death Rates in Victoria from—
    - (a) Diphtheria 96
    - (b) Tuberculosis 97
    - (c) Typhoid Fever 98
    - (d) Whooping Cough 99

B. Vital Statistics 100

Digitized by the Internet Archive
in 2019 with funding from
Wellcome Library

https://archive.org/details/b31479327

THIRTY-FIRST REPORT OF THE COMMISSION OF PUBLIC HEALTH, 1952–53.

To the Honorable W. P. Barry, M.L.A., Minister of Health.

SIR,

We have the honour to submit, in accordance with the provisions of Section 13 (3) of the *Health Act* 1928, our Report for the year ending 30th June, 1953.

Although there have been no major outbreaks of disease during the year, the Commission has encouraged investigation into all epidemic illnesses, and much research work has been made to further the understanding of the incidence and infectivity of these diseases within the community.

INFECTIOUS DISEASES.

The Infectious Diseases Regulations which were amended on 25th July, 1951, and 11th June, 1952, now include special provisions relating to rubella, the classification of poliomyelitis into paralytic and non-paralytic, and of typhus into flea borne, mite borne, tick borne, and louse borne types.

These additional notifiable diseases comprise :—

Acute rheumatism ;
Chorea ;
Dengue fever ;
Diarrhoea of 48 hours' duration in children under two years of age ;
Encephalitis—all forms ;
Filariasis ;
Homologous serum jaundice ;
Infective hepatitis ;
Whooping cough ;
Leptospirosis.

This list was circulated to medical practitioners throughout the State for addition to their notification booklets and is now included in all newly issued booklets.

The schedule relating to exclusion of patients and contacts from school has been revised and a uniform procedure now operates in all States of the Commonwealth.

POLIOMYELITIS.

Poliomyelitis is the most important infectious disease in Australia at present. Although infection with poliomyelitis virus is accompanied by paralytic manifestations in only relatively few persons, the distribution of virus is so extensive that the incidence of paralytic poliomyelitis is now considerable. Whereas the incidence of most other infectious diseases has steadily decreased during recent years that of poliomyelitis has increased. During the past four years the incidence of poliomyelitis in Australia as a whole has been higher than at any time previously.

During the past decade there has been an extension of the disease incidence into the young adult age group with an associated increase in the morbidity and mortality. Although children in the 5–9 year age group are still those predominantly affected there has been an increasing number of young adult males and pregnant females affected, usually severely. The mortality from poliomyelitis is highest in the males between 20 and 24 years of age.

The laboratory study of poliomyelitis has been greatly facilitated by the adaptation of poliomyelitis virus to growth in tissue culture. Prior to this development, now in use at the Commonwealth Serum Laboratories, the Walter and Eliza Hall Institute, and the Fairfield Epidemiological Unit, it was not possible to grow the organism in vitro, and the virus could only be propagated by using the one susceptible laboratory animal, a species of monkey. The purchase and maintenance of these animals for experimental purposes was very costly and confined extensive investigation to richly endowed research institutes.

Tissue culture has made it possible for local scientists to keep abreast with any developments in diagnosis prophylaxis treatment and possibly immunization for poliomyelitis and allied fields.

Clinical diagnostic facilities have been increased, resulting in better diagnosis and a lower rate of admission to hospital of patients suspected of, but later found not to be, suffering from the disease. This facilitates early treatment of cases and at the same time reduces the overall cost to the State.

The provision of after-care has also improved. In 1952–53, 410 cases occurred compared with 945 in 1949–50 and 2,096 in 1937–38.

TUBERCULOSIS.

Mortality and Morbidity.

Mortality from pulmonary tuberculosis continues to decline. The death rate in 1952 from all forms of tuberculosis was 14·8 per 100,000, the lowest yet recorded in Victoria. A gratifying feature of the falling mortality is that the effect is most marked in the lower age groups; in 1952 only five children under the age of fourteen died of tuberculosis, and only 23 adolescents or adults under 30 years of age.

Notifications of pulmonary tuberculosis show no corresponding decline, but this does not imply that there is no reduction in morbidity. The intensive case finding campaign conducted by the Chest X-ray Surveys Division has resulted in the detection of many previously concealed cases, and the financial benefit available to sufferers under the Commonwealth Tuberculosis Allowances Scheme has been a powerful stimulus to notification.

Institutional Beds.

At the close of 1952, 878 beds were occupied in State institutions for treatment of pulmonary tuberculosis, and 85 men and 30 women were awaiting admission. In addition, the Repatriation Commission maintains 400 beds, so that a total of 1,278 beds was available. In 1952, 346 deaths from all forms of tuberculosis occurred, a ratio of four beds per death. This is a satisfactory figure.

Chest X-ray Surveys.

The number of persons examined continued to increase; in 1952, 408,311 miniature chest X-rays were taken, resulting in detection of 1,384 pulmonary infections with radiological evidence of activity. All such cases require observation with further clinical and bacteriological investigations; approximately one-third require institutional treatment.

Immunization against Tuberculosis.

Since February, 1951, B.C.G. vaccination has been offered to all Mantoux-negative school children in Victoria over the age of thirteen years. By the end of 1952, the Departmental medical officers and nurses had completed initial visits to secondary schools throughout the State. The response of parents was most encouraging, over 90 per cent. consenting to administration of the vaccine. This campaign is continuing and, in addition, B.C.G. vaccination is offered to all National Service trainees. In 1952, 26,517 school children, National Service trainees, and University students were Mantoux tested, and the 23,178 Mantoux-negative reactors were given B.C.G. vaccine.

DIPHTHERIA.

During the year 246 cases were notified, compared with 141 cases in the previous year, which was the lowest figure ever recorded in Victoria.

A threatened epidemic of diphtheria in one municipality, and newspaper reports on the situation, stimulated interest in diphtheria prevention. Most municipalities conducted immunization campaigns during the year. New and more effective material for immunization has been produced at the Commonwealth Serum Laboratories and has been used throughout the State. A combined preparation to give protection against diphtheria and whooping cough is also available.

Investigations have shown that more than half the children joining school are immune to diphtheria. This is largely the result of inoculations at pre-school centres and privately by medical practitioners. A higher level is aimed at and will be attained by the present policy of giving single " booster " doses to all who require them and full immunizing doses to those who are suspected, on the evidence of the Schick test, of having little or no immunity.

TETANUS.

Recent investigations have shown that tetanus, though a relatively rare disease, inflicts a yearly mortality as high as that of diphtheria, despite the best hospital treatment. To lower this mortality it is necessary to prevent the disease, and to this end injection material has been prepared at the Commonwealth Serum Laboratories which will give protection against both tetanus and diphtheria. This preparation, it is thought, will largely take the place of anti-tetanic serum now used in the prevention of tetanus, and obviate its dangers, for it has been stressed that many fatal cases followed on wounds so trivial that the giving of anti-tetanic serum at the time of the accident was not considered worth while. Active immunization in childhood would remove this risk and immunity could be bolstered following an accident, by giving a further dose of tetanic toxoid alone and without the diphtheria component.

In the near future it should be possible by the combining of many preparations active against all the chief diseases of childhood to afford children the highest degree of protection. This is the Health Department's aim.

Twelve cases of tetanus were notified during the year.

LEPTOSPIROSIS.

Field work and laboratory investigations by the Fairfield Epidemiological Research Unit, the State Health Department, and the Department of Agriculture have shown that leptospirosis is an endemic disease amongst dairy farm workers in East Gippsland where swine are considered to be the important reservoir of infection, with cattle as a smaller reservoir.

Further investigations on this disease in Victoria have been along three main lines of approach. The course of the disease amongst animals and dairy farm workers in Gippsland has been observed; serological studies of abattoir workers in the Melbourne metropolitan area have been pursued and tests for leptospirosis have been performed on a series of patients with aseptic meningitis.

Over the past twelve months there has been a low incidence of the disease in East Gippsland both among humans and animals. Over this quiescent period, however, two strains of leptospira pomona and one strain of leptospira mitis have been isolated from healthy Gippsland swine.

A total of 422 sera from abattoir workers have been tested for leptospiral antibodies by means of the agglutination test.

On analysis, it was found that persons such as slaughtermen, offal workers, and butchers had the highest percentage of positive reactions. As would be expected, slaughtermen who were handling pigs all or part of their time showed a high incidence of infection.

In the course of the investigation into cases of aseptic meningitis, three patients were found to be suffering from leptospiral meningitis, due to leptospira pomona. These patients had handled animals in the course of their occupational duties.

Since the clinical illness is usually of a nondescript character, the diagnosis will be missed unless the possibility of its occurrence is kept in mind. A better awareness of this disease amongst medical men engaged in industrial practice and in farming areas would probably bring to light additional cases. Cases of this disease were made notifiable this year.

BRUCELLOSIS.

This year, on the recommendation of the National Health and Medical Research Council, the name of this disease was altered from "undulant fever" to "brucellosis" to conform to international nomenclature.

The transmission of this disease and its spread in the community is ill-defined. The organism which is responsible for the disease is the cause of contagious abortion in cattle and is the source of considerable economic loss in the cattle and dairying industries. Although the organism is frequently present in milk the number of cases which arise in humans from drinking unpasteurized milk is so few that milk is not regarded as a frequent vehicle of infection.

All humans and cattle who have suffered from the infection develop in their blood a substance or quality called agglutinin which has the power of aggregating or "agglutinating" suspensions of the germ in a test tube in the laboratory. This is one test; another has been developed in America using a material called "Brucellergin" which, when injected into persons or animals which have had an infection, causes an allergic skin reaction.

More recently, in the Public Health Laboratory at the University of Melbourne, a third test has been devised which is both more sensitive and simpler to use than the other two tests.

Investigations into the merits of these tests are being continued by workers from the Fairfield Epidemiological Research Unit and the State Health Department.

This work should lead to a better understanding of the disease and help towards its eradication.

Murray Valley Encephalitis.

No cases of this disease were reported during the period under review.

One phase of the investigations into Murray Valley encephalitis by the Walter and Eliza Hall Institute was initiated in Broken Hill, New South Wales, during 1952, when a serological survey was carried out on local residents to determine whether further evidence could be found to support the hypothesis that X-disease and Murray Valley encephalitis were closely related, if not identical diseases.

Broken Hill was chosen for study as representing an area where epidemics of X-disease had occurred in the years 1917–18 and probably in 1925. Since that time no outbreaks of encephalitis have occurred. There was no evidence that the outbreak of encephalitis which occurred during 1951 in various parts of Victoria, New South Wales, and South Australia had spread to Broken Hill.

If antibody could persist for 35 years in persons sub-clinically infected, then a significant proportion of old residents of Broken Hill might still be carrying antibody against the virus of X-disease.

In co-operation with the New South Wales Health Department, serological tests were performed on a group of residents of Broken Hill, and antibodies to Murray Valley encephalitis virus were demonstrated in nineteen out of 92 people who were living in Broken Hill when X-disease was present in 1917 and 1918. On the other hand, only two people out of 69 who were not exposed to X-disease had Murray Valley encephalitis antibody.

These results support the hypothesis that epidemics of Australian X-disease were caused by a virus antigenically indistinguishable from or closely related to Murray Valley encephalitis virus and that the latter virus was not present in Broken Hill during 1951.

Typhoid Fever.

Typhoid fever has occurred in various parts of Victoria in the form of isolated cases. Many country areas have been free of this disease for a great number of years.

Hydatid Disease.

The number of cases of hydatid disease notified for 1952 was 23, a slight increase over the previous year when nineteen cases were notified. However, these figures are only a guide to the problem, as many of the cases which occur are not notified to the local authorities. The disease is still prevalent, and further extensive work is needed to educate the people, particularly those on the land in the western area of the State.

New farmers are going on to the land every year and may not be aware of the means of prevention of this disease.

The use of pamphlets, posters, and films on hydatid disease and its prevention has been the main approach to this problem of education.

Infantile Diarrhoea.

Infantile diarrhoea has been made notifiable in order that epidemics may be traced and the causal organisms studied. It is hoped that with this knowledge it will be possible to prevent outbreaks of the disease such as those which have occurred in some institutions.

INFECTIVE HEPATITIS.

This disease occurs in various parts of the State in the form of isolated cases and localized outbreaks. Little is known, as yet, of the means of transmission of the causal virus, but notification will help in the acquisition of knowledge which may result in its prevention.

THE DYSENTERIES.

Shiga and Sonne are the two types of dysentery which occur, and are distributed throughout the State, but they give rise to few active infections.

Although a few cases of amoebic dysentery have occurred in a mental institution, there is some doubt as to whether this disease occurs in the general population apart from infections acquired outside the State. A small percentage of the population are chronic carriers of cysts.

MALARIA.

Apart from two cases which were reported from Melbourne at the end of the last war, malaria apparently does not occur in Victoria.

VENEREAL DISEASE.

The incidence of venereal disease was higher than the previous year, but treatment continues to lower the duration and infectivity of the disease. Experience at the Government Clinic indicates that prophylactic treatment soon after exposure virtually gives complete protection.

Education of affected people that they may unhesitatingly come for treatment is still the most important factor in eliminating the disease.

HANSEN'S DISEASE (LEPROSY).

At 1st January, 1952, three cases of Hansen's disease were under treatment at the Exotic Diseases Hospital, Fairfield. During the ensuing twelve months, one patient died, one was repatriated to Italy, and three new cases were admitted. At 31st December, 1952, four cases were under care.

These comprised an Anglo-Indian woman, two male Maltese, and a Victorian ex-serviceman of the 1914–18 war who saw service in Egypt, Malta, and France. As far as is known, this is the first case of Hansen's disease in a person born in Victoria.

ACUTE FOOD POISONING.

An outbreak of acute food poisoning which occurred in October, 1952, affected some 80 of the people who had attended an annual show at a Victorian country town.

The source of the infection was traced by means of " phage " typing, to a person who had prepared food. This delicate test for identifying the strain of an organism showed that the infection in those affected was the same as that carried by the food handler. It is thought to be the first time that such a test has been used successfully in Australia in the investigation of such an epidemic. Fourteen persons were admitted to hospital, but there were no deaths.

FLUORINE IN WATER SUPPLIES.

The amount of fluorine in water in Victoria has been investigated and all town water supplies have been analysed. A review of work carried out in many places abroad, where fluorine to the extent of one part per million has been added to domestic supplies in order to lower the incidence of tooth decay, has been made, and the possibility of such an introduction in some parts of Victoria has been considered.

The Commission has approved the setting up of a committee to advise on this problem which is under discussion in many parts of the world.

INDUSTRIAL HYGIENE.

The demands for the services of this Division continue to increase, and as new hazards come to light various regulations have been enforced or amended to prevent them.

The Commission has approved of amendments to the Dangerous Trades (Medical Examinations) Regulations which will improve the methods of reporting the results of these examinations and thus help to prevent the employment of unsuitable persons in hazardous work.

Extensive investigations have also been made into various trades. Through the co-operation of the Mass X-ray Survey Division, 3,000 chest X-rays have been taken of persons engaged in dusty trades. These have revealed 131 workers suffering from lung involvement. So far as has been ascertained up to the present time, there are 694 people suffering from pneumoconiosis in Victoria.

The Industrial Medicine Section of the Victorian Branch of the British Medical Association has been formed by those interested in the health of workers in industry. This is an encouraging sign of the greater interest now being taken in this important branch of medicine. The medical members of the staff of this Division are taking an active part in the activities of this section.

PUBLIC BUILDINGS.

The number of public building plans examined during the calendar year remained approximately the same as for the previous year. Although building restrictions were eased early in the year, building programmes were retarded by lack of finance.

Pre-school centres were again responsible for the largest group of public building projects, 149 new centres being established.

The new Public Building Regulations were gazetted in December, 1952.

SEPTIC TANK SYSTEMS.

There has been a considerable increase in interest in wholesale septic tank installation by Councils in provincial towns which are too small for normal sewerage schemes.

Models of a septic tank installation and of a septic closet installation have been exhibited throughout many country municipalities to promote interest. The installation of the septic tank or septic closet is a very real advantage, banishing the old-fashioned and less sanitary pan closet from residences, and relieving the Council of the problem of nightsoil disposal.

COUNTRY SEWERAGE.

One new plant came into operation in the Eildon township and work has proceeded steadily on the sewerage installation at Moe where the treatment plant, which will also serve the large settlement at Newborough, is expected to be completed shortly.

Quarterly inspections of provincial sewage treatment works are being resumed now that staff is available for this work.

REVIEW OF PROGRESS IN PUBLIC HEALTH LEGISLATION.

Act.

The *Health* (*Meat Supervision*) *Act* 1952 repeals the Schedule to the Health Act setting out maximum charges in connexion with abattoirs and meat inspection and authorizes the fixing of maximum charges by proclamation.

Regulations.

The Meat Supervision Regulations were amended to establish captive bolt or electrical stunning as the normal method for slaughtering cattle and swine at abattoirs.

The Offensive Trades Regulations were amended to re-define standards of cleanliness of materials and finished product in the trade of flock making.

The Public Building Regulations 1952 comprise a complete revision of the earlier Building Regulations.

The Infectious Diseases Regulations were amended by the insertion of provisions relating to the compulsory radiological chest examinations authorized by the *Health* (*Radiological Examinations*) *Act* 1951.

The Benzene Regulations were amended to make special provision for labelling of benzene used only as motor fuel, and to prescribe a standard method of analysis for determination of benzene in any liquid or other substance.

New regulations were gazetted prescribing precautions to be observed in the manufacture and use of certain pesticides.

The Food and Drug Standards Regulations were amended by—

(*a*) addition of a new prescribed colouring;

(*b*) revision of the labelling requirements for pasteurized milk, and for cream.

PROCLAMATIONS AND ORDERS IN COUNCIL.

The coming into operation of the Corangamite and Kyneton meat areas was further deferred.

The Flinders and Ferntree Gully meat areas were constituted.

A scale of maximum charges for abattoir services was fixed by proclamation.

Leptospirosis was declared a notifiable infectious disease.

The manufacture of certain pesticides was declared a dangerous trade.

AMENDMENT OF HEALTH ACT 1928.

In previous annual reports the Commission has pointed out the need for further amendment of the Health Act in a number of respects.

In addition to the matters already brought under notice the Commission asks that the following amendments receive consideration:—

(*a*) An amendment of section 16 of the *Health Act* 1935 to provide that the purchaser's portion of a sample of food alleged to be adulterated need not be produced in court at any hearing of a case subsequent to the original hearing.

(*b*) The re-enactment of section 179 of the *Health Act* 1928, which was repealed by the *Slum Reclamation and Housing Act* 1938.

(*c*) The revision of sections 221 and 222 of the *Health Act* 1928 to deal with the use of poisonous substances in papers used for wrapping.

Respectfully submitted—

KEVIN BRENNAN
F. V. SCHOLES
WALTER SUMMONS
ALEX. M. KING
EDW. C. RIGBY
R. G. HOBAN
W. B. MONTEATH
T. R. FLOOD

Members of the Commission

G. V. STAFFORD, Secretary,
Melbourne, 22nd September, 1953.

DIVISIONAL REPORTS.

REPORT OF DIRECTOR OF TUBERCULOSIS, VICTORIA, FOR THE YEAR ENDED 31st DECEMBER, 1952.

Satisfactory progress is being made in the campaign which Victoria, with Commonwealth assistance, is conducting against tuberculosis. In Victoria, in the financial year ended 30th June, 1953, maintenance expenditure on tuberculosis amounted to £1,281,270 and capital expenditure to £161,205. Tuberculosis allowances amounting to £534,806 17s. were paid to Victorian tuberculosis sufferers by the Commonwealth during that period. As at 30th June, 1953, 1,665 persons in Victoria were in receipt of tuberculosis allowances. The number of persons actually suffering from active tuberculosis is in excess of this number, since some sufferers are ineligible on financial grounds, for example most married women are disqualified by reason of their husbands' earnings.

Mortality and Morbidity.

Tuberculosis mortality continues to decline. Deaths from pulmonary tuberculosis in the calendar year 1952 numbered 303, a rate of 13 per 100,000. Rates in the five years 1948–1952 inclusive were as follows :—

Year.	Mortality from Pulmonary Tuberculosis per 100,000 of Population.
1948	27·8
1949	25·0
1950	17·8
1951	15·8
1952	13·0

The mortality rate has halved in the past five years and it is particularly gratifying that the decrease in the number of deaths from tuberculosis is most marked in the younger age-groups. Notifications of tuberculosis show no corresponding decline, but this should not be regarded as conclusive evidence that morbidity is stationary. The intensive case finding programme, particularly by means of chest X-ray surveys brings to light many previously concealed cases of tuberculosis, while the financial benefit provided by the Commonwealth Tuberculosis Allowances scheme continues to be a powerful stimulus to notification. There are now, indeed, some indications that the demand for sanatorium beds has passed its peak. Certainly a decreasing number of beds is now required for accommodation of women. The demand for male beds is not slackening but this is because provision is now made for many middle-aged and elderly men, who formerly were not considered suitable for sanatorium treatment.

Institutional Beds.

At the close of 1952, 1,017 beds were available in State institutions for treatment of tuberculosis. There was at that time a waiting list of 85 men and 30 women. An additional 411 beds are provided by the Repatriation Commission. The total number of beds available was therefore 1,428, which is 4·7 per death from pulmonary tuberculosis.

Sanatoria and Chalets.

The major change in policy was the provision of beds for male patients at the two sanatoria, Heatherton and Greenvale, which previously catered for women only. This step became necessary because of a change in the relative numbers of men and women requiring institutional treatment. Whereas, as recently as 1951, female applicants for admission were about fifty per cent. in excess of males, there is now a slight excess of male applicants. This position has arisen partly from a decrease in the number of women requiring treatment, and partly because developments in the chemotherapy of tuberculosis have widened the indications for admission of middle aged and elderly sufferers, of whom the majority are male.

Henry Watson House was opened in August, 1952. This property, which is conveniently situated in South Yarra, provides excellent accommodation for 38 convalescent or chronic female patients. It is administered as an annexe of Heatherton Sanatorium. The homely atmosphere of this unit, and its accessibility to relatives and friends of patients, have made it popular with the classes of patients for whom it was provided.

Chest Clinics and Bureaux.

No innovations were introduced in the conduct of the Tuberculosis Bureaux, whose activities are detailed in the appended reports. An important function of the Bureaux is medical certification and supervision of applicants for, and recipients of tuberculosis allowances. Some difficulties were experienced in the past in supervision and certification in areas not served by Tuberculosis Bureaux. To cover this deficiency, in selected areas throughout the State, doctors have been appointed to act as medical referees under the Tuberculosis Allowances Scheme. This scheme is working successfully ; it saves patients much unnecessary travel and ensures that a proper check is kept on their health.

Thoracic Surgery.

There is an increasing demand for surgery in pulmonary tuberculosis, and three surgical teams were engaged in this field at the Austin Hospital in 1952. Details of the operative procedures, and of the results are shown in the report on the activities of the Sanatorium Section, Austin Hospital, which is appended.

Chest X-ray Survey.

Record numbers of field surveys were undertaken in 1952, totalling 222 in comparison with 126 in the previous year. In all 408,311 persons were examined of whom 1,384 showed radiological evidence of pulmonary tuberculosis of probable or possible activity. Checks on histories of patients in sanatoria show that about one-half of cases admitted were discovered by chest X-ray surveys.

B.C.G. Immunization.

In addition to protection of child contacts and of groups exposed to special risks, B.C.G. vaccination is offered to all Mantoux negative children in the State of 13 years and over, to University students, and to National Service trainees. In 1952, 26,517 children and others in these groups were Mantoux tested, and 23,178 persons who did not react to the Mantoux test were given B.C.G. vaccine.

Rehabilitation.

The Commonwealth Departments of Social Services and of Labour and National Service have continued to co-operate with the Rehabilitation Section in training and placing tuberculosis subjects in suitable employment. Efforts are made to orient the patient towards his return to work while he is still in sanatorium. Tuition of women patients in typing and shorthand provides a suitable outlet for the majority of them; men present a more difficult problem. Social work among patients has expanded, and we are greatly indebted to Red Cross and to the Victorian Tuberculosis Association for assistance in this sphere.

General.

Reports of the various sections and institutions of the Tuberculosis Branch and statistical tables are appended.

CLINICAL AND BUREAUX SERVICES.

CENTRAL CHEST CLINIC AND TUBERCULOSIS BUREAU, MELBOURNE.

Deputy-Director of Tuberculosis, Diagnostic Services: Dr. H. M. James.

The volume of work passing through this Clinic has remained much the same for the last three or four years. The total daily attendances vary between 100 and 150 patients, of which 30 to 40 represent new attendances. New attendances comprise persons sent for opinion, those already diagnosed as suffering from pulmonary tuberculosis and new contacts. Close liaison is being maintained with the Division of Chest X-ray Surveys from whom many new cases are referred.

The bed position has improved especially with regard to female patients, and it is now possible to admit a female patient to a sanatorium within one week of diagnosis. The position with regard to male patients is better than in previous years, and it is usually possible to admit an urgent case at once. With the improvement in the bed position, there has not been quite the same necessity for domiciliary treatment, but our doctors visit regularly on four afternoons weekly in the metropolitan area.

The work of the X-ray Department has increased. This is due mainly to the somewhat closer supervision necessary for cases under the newer forms of chemotherapy and to careful observation of those cases receiving tuberculosis allowances. We are taking more notice of special positioning of X-rays in the way of lordotic, lateral, and oblique views so that multiple films are more frequent.

Developments in chemotherapy are being closely watched and a good deal of work is being done with regard to the investigation of drug resistance with Streptomycin, Para-Amino-Salycylic Acid and Isoniazid.

The B.C.G. Clinic continues to operate two days weekly, and there has been no lessening on the demand for this service. Over 4,000 children who are contacts have been immunized during the last four years. Practically all these have been re-checked and to the best of our knowledge there have been no cases of tuberculous meningitis or generalized tuberculosis amongst them. We have been singularly free of any serious trouble in the administration of B.C.G. The few minor cases of adenitis which have occurred have responded to treatment.

Up to the present time which is about four years from the commencement of the B.C.G. immunization campaign, the great majority of the patients have remained Mantoux positive, indicating that they have retained a certain degree of immunity. During this period only 1·9 per cent. have reverted from being Mantoux positive to being Mantoux negative. These have been given a second injection of B.C.G., and have satisfactorily converted to Mantoux positive again.

The Clinic undertakes instruction to fifth year medical students who attend for short periods of instruction in diseases of the chest.

CHEST CLINIC AND TUBERCULOSIS BUREAU, PRAHRAN.

Tuberculosis Officer: Dr. D. V. Church.

During the period 1st January, 1952, to 31st December, 1952, the total attendances of patients to the Prahran Chest Clinic was 8,381, an increase of 416 over the previous year. The areas served by the Prahran Chest Clinic are the City of Prahran and the City of Malvern, which latter area became the concern of the clinic in August, 1952.

In the period under review 2,737 new patients were seen at the clinic, most of these being referred by local practitioners for investigation of conditions referable to the lungs, and to whom they are referred back after completion of investigations. At the clinic, 378 patients suffering from pulmonary tuberculosis in various stages of the disease are under observation—260 in the City of Prahran, and 118 in the City of Malvern. One patient has attended at weekly intervals for the maintenance of an artificial pneumothorax. In the period under review 32 new cases of pulmonary tuberculosis were notified, 9 of which were detected by micro radiography.

During the year 1952, 1,341 visits by contacts of tuberculosis patients have been made to the clinic for examination and routine chest X-rays; 446 new contacts have attended the clinic and of these, 3 cases of pulmonary tuberculosis and 2 cases of primary infection have been detected. Mantoux tests have been carried out on these contacts and B.C.G. vaccination offered to the negative reactors. In May, 1952, a B.C.G. clinic was started and for the period under review 116 contacts have been vaccinated. A Mantoux survey of first year class of occupational therapy students was carried out, and B.C.G. vaccination given to the negative reactors.

Survey by micro-radiography is available during two sessions weekly. Casual patients are seen at these sessions, and in addition, employees of the following factories and members of the following institutions were X-rayed:—

Electrolux Pty. Ltd.
J. W. Handley Pty. Ltd.
Melbourne Bible Institute.
Royal Victorian Institute for the Blind.
Melbourne District Nursing Service.
Althea Sportswear Pty. Ltd.
Carry On Club.
Russell Manufacturing Co. Pty. Ltd.

In September, 1952, by arrangement with the Department, a micro-film survey was instituted for the out-patients of the Alfred Hospital. In all, 3,450 micro-films have been taken.

CHEST CLINIC AND TUBERCULOSIS BUREAU, BENDIGO BASE HOSPITAL, BENDIGO.

Tuberculosis Officer : Dr. K. G. Kerr.

There were 46 notifications of tuberculosis in the Northern Health Area, 16 being from the City of Bendigo, 6 from the adjoining Borough of Eaglehawk, 9 from the City and Shire of Mildura, and 15 from the rest of the area. In addition, there were 7 notifications of exudative pleurisy.

Fourteen of the notifications were from the chest clinics, local or central, 20 from various hospitals, and 19 from private practitioners, who now notify more regularly than they did in previous years.

In 1951, notifications totalled 53.

This year there were 43 pulmonary cases, one case of tuberculous spine (diagnosis not verified), one case of thoracic tuberculous sinus, and one case of tuberculous meningitis in a child of one year.

Of the pulmonary cases, there were 29 males and 14 females. Twenty-nine patients were over 30 years of age. There were 6 males and 8 females under 30 years of age.

Notifications of Pulmonary Tuberculosis.

—	Males.	Females.
Under 10 years	1	1
10–19 years	..	5
20–29 years	5	2
30–39 years	4	4
40–49 years	5	..
50–59 years	5	1
60–69 years	5	..
70–79 years	4	1
	29	14

Of 21 pulmonary cases, whose stage of disease at notification is known, 8 could be said to be in the first stage.

Fifteen deaths from pulmonary tuberculosis were notified, one death from tuberculous spine and and meningitis, and one death of a child of fourteen months from miliary tuberculosis. Of the pulmonary cases, 10 were males and 5 females. Eight of the pulmonary deaths were of residents of the City of Bendigo, thus giving a death-rate of 2·8 per 10,000 of estimated population of 27,800. Last year the rate was 2·8 and in the five-year period 1946–1950, Bendigo had an official death-rate from pulmonary tuberculosis of 5·3 per 10,000 compared with rates of 3·1 for Melbourne, 2·5 for Ballarat, and 1·5 for Geelong.

Two deaths were of persons who were not known to the chest clinic as cases of pulmonary tuberculosis before death.

Only three of the 15 deaths from pulmonary tuberculosis were of persons under 40 years of age, 10 persons being over 60 years. The youngest male was 53 years. Only three deaths occurred of patients in the Chalet, all over 60 years.

Deaths.
(Pulmonary Tuberculosis.)

—	Males.	Females.
Under 10 years	..	..
10–19 years	..	..
20–29 „	..	1
30–39 „	..	2
40–49 „	..	..
50–59 „	2	..
60–69 „	5	1
70–79 „	2	1
80–89 „	1	..
	10	5

Excluding patients whose disease has been arrested for five years or more, the following table illustrates the present clinic register :—

Number of cases of pulmonary tuberculosis attending clinic	121
Number of cases of pulmonary tuberculosis in Bendigo Chalet or in sanatorium ..	28
Number of cases of pulmonary tuberculosis in Bendigo and immediate environs under own doctor or Repatriation Department	82
Number of cases in rest of Northern Health Area not attending clinic	130
Number of non-pulmonary cases ..	24
	385

Attendances for the year at the chest clinic were as follows :—

Attendances for the year at the Chest Clinic.

—	Male.	Female.	Under 14.		Total.
			Male.	Female.	
Number of new applicants for investigation	229	235	67	58	589
Re-attendances	827	1,123	327	421	2,698
Total attendances	1,056	1,358	394	479	3,287
Application for sanatorium admission from outside	11	6	..	..	17
Examinations ..	538	439	111	136	1,224
Evening clinics—Total attendances	114	129	8	10	261
Patients found with active tuberculosis ..	9	6	..	1	16
Cases passed for—					
Greenvale	..	..	..	..	..
Gresswell ..	..	..	..	..	..
Heatherton	..	..	..	..	..
Austin ..	4	4	..	..	8
Country chalets	16	11	..	..	27
Bureau cases transferred to sanatoria or chalets ..	14	20	..	..	34
Sanatorium cases transferred to Bureau ..	12	11	..	..	23

Attendances for the year at the Chest Clinic—continued.

—	Male.	Female.	Under 14.		Total.
			Male.	Female.	
Contacts—					
Number of new contacts examined	28	38	26	25	117
Number of infecting cases in relation to	27	24	..	2	53
Number of re-examinations	82	137	61	79	359
Number of contacts found with active tuberculosis	2	..	..	..	2
Skin Tests—					
Number of Mantoux or Vollmer tests	232	490	163	181	1,066
Number of positive tests	147	285	76	96	604
B.C.G. Vaccination—					
Number of persons vaccinated	21	118	36	38	213
Total attendances for vaccination	105	643	184	227	1,159
In schools and factories	..	..	..	..	678
Pneumothorax Refills (Artificial Pneumothorax.)—					
Number of persons undergoing A.P.	3	6	..	..	9
Total A.P. Refills	30	80	..	..	110
Taken on for A.P.	2	4	..	..	6
Discharged from A.P.	1	1	..	..	2
X-ray Examination—					
Large films	661	570	148	189	1,568
Micros	..	..	..	..	..
Screens	28	80	..	..	108
Gastric lavages done	14	12	..	5	31
Sputum examinations	252	65	..	2	319
Home Visits—					
Medical officers	..	..	..	..	..
Nurses' first visits	18	13	..	1	32
Nurses' re-visits	222	151	2	10	385

B.C.G. Vaccination.

Regular sessions for B.C.G. vaccination have been held at the clinic and nine secondary schools (including Teachers Training College) and seven factories in Bendigo were visited. At the latter, vaccination is offered to those up to 30 years of age. Two hundred and thirteen persons were vaccinated at the clinic and 678 at schools and factories. Since 1948, 3,316 individuals have been vaccinated in Bendigo.

Mantoux tests have shown that 6·75 per cent. of school children (aged 12–17) are reactors and in factories (age group 15–30) 20·8 per cent. reacted. Non-reactors were vaccinated.

B.C.G. Vaccination for 1952.

Number of people vaccinated at clinic (including trainee nurses)	213
Vaccination in secondary schools and factories (including student teachers)	678
Total number vaccinated	891

Post-vaccination Mantoux tests have been performed after eight weeks in the case of those vaccinated at the clinic, and, as far as possible, tests have been repeated at one, two, and three-year intervals.

1952.

Number converted, after 8 weeks, of 153 tested	153 =	100%
Number of convertors, still positive after twelve months, of 96 tested	83 =	86%
Number of convertors, still positive after two years, of 83 tested	77 =	92%
Number of convertors, still positive after three years, of 5 tested	5 =	100%

As the number of convertors still positive after twelve months was found to be 89 per cent. of 67 tested in 1950, and 88 per cent. of 185 tested during 1951, it appears that, in this community, 11 to 14 of every 100 persons vaccinated, of various ages up to thirty years, revert in twelve months and in another twelve months a further 8 per cent. have reverted.

In the case of trainee nurses, it has been found, prior to the institution of B.C.G. vaccination, that 90 per cent. had converted by the time they had finished training.

Therefore, conversions after B.C.G. are complicated by inevitable exposure to natural infection during the course of training.

Re-tests of Nurses Vaccinated.

Number of convertors, still positive after twelve months, of 55 tested	52 =	94%
Number of convertors, still positive after two years, of 27 tested	27 =	100%

In vaccinating 3,316 individuals, complications have occurred in the case of five infants under twelve months. Two developed abscesses of glands in the clavicular region and three had enlarged axillary glands which did not break down. As only 35 infants under twelve months have been vaccinated, the proportion of those showing complications is 14 per cent.

Silicosis.

Four deaths from pulmonary tuberculosis were of gold miners with silicosis also.

In addition there were 8 deaths of miners with silicosis but the deaths were registered as being due to broncho-pneumonia, cardiac failure or cardio-vascular disease.

Eighteen cases of silicosis were notified from the clinic as cases of industrial disease, together with two cases of silicosis complicated by tuberculosis in each of which tubercle bacilli were found in the sputum.

Seven examinations of applicants for a miner's phthisis allowance were made. Six had silicosis, and in one instance there was no evidence of silicosis.

There are 156 registered cases of silicosis at the clinic, including 21 complicated by tuberculosis, in 8 of which tubercle bacilli have been found in the sputum.

CHEST CLINIC AND TUBERCULOSIS BUREAU, BALLARAT.

Tuberculosis Officer: Dr. G. T. James.

The facilities offered in the clinic for investigation of chest conditions is taken full advantage of by medical men throughout the district. Every endeavour is now made to Mantoux test the children of proven cases, and where necessary, to administer B.C.G. vaccine. Routine testing of trainees at the hospital has been undertaken by the medical superintendent and vaccine administered where required. Figures regarding pneumothorax are given in the chalet report which follows later; for convenience sake all refills are carried out here.

CHEST CLINIC AND TUBERCULOSIS BUREAU, GEELONG.

Tuberculosis Officer: Dr. D. N. L. Seward.

During 1952, attendances showed a further slight increase to a total of 1893, including 294 new patients referred to the clinic for investigation. A total of 15 were found to be suffering from active tuberculosis.

Artificial pneumothorax formed a part of the treatment in the case of 8 patients, and one patient was treated with an artificial pneumoperitoneum. The total number of refills given was 180.

Contacts vaccinated with B.C.G. vaccine numbered 44, and a 100 per cent. conversion rate was obtained.

In addition to the routine work at the clinic, the clinic sister has made 408 home visits to patients and contacts.

INSTITUTIONS

GRESSWELL SANATORIUM.

Medical Superintendent: Dr. D. B. Rosenthal.

1. The total number of patients admitted was 239, discharges were 219, and deaths 7. The average daily number of patients was 172 and average duration of stay was 338 days.

2. *Treatment.*—Routine sanatorium treatment, with rest and graduated exercise as the basis, has been fundamental in the management of patients. Antibacterial therapy, with Streptomycin, P.A.S., Thiosemicarbazones, and later Isoniazid, was used increasingly.

Artificial pneumothorax was induced and maintained in 39 cases, and artificial pneumoperitoneum in one case. Major surgical procedures were carried out at the Austin Hospital, including thoracoplasty in 9 cases, and pulmonary resection in 18 cases.

3. Several important additions to the sanatorium buildings were completed during this period, including the domestic hostel (a similar building to the nurses' home, Davison House), providing comfortable living accommodation. New quarters for married domestic and male staff were completed. The additional accommodation thus provided enabled wards 11 and 12, previously used for staff, to be reopened, providing beds for an additional 24 patients.

Work continued on the provision of a linen sorting room and store, and new residences for medical officers and secretary were almost completed.

Toilet sterilizers were installed in hospital wards, considerably improving the available nursing facilities.

4. A major event was the completion of the Olney Rehabilitation Centre, an excellent reconstruction of the army-type hospital hut having been achieved by the Public Works Department. A complete coverage of facilities for recreation, occupational therapy and rehabilitation study is now provided. The centre includes an excellent library, art therapy section, study and reading rooms, craft rooms, offices for the Red Cross personnel and therapy officers, kiosk and barber shop. With the existing facilities for training in boot repairing and woodwork, the complete unit is satisfactory in every respect. The Gresswell Ladies' Auxiliary (which has given support to work in the sanatorium continuously for 18 years) provided furniture valued at £500 to the centre.

On 6th December, Dr. Kevin Brennan, Chief Health Officer, opened the building officially, naming it the Olney Rehabilitation Centre, in honour of Sir Herbert Olney and his family, who for many years, have provided support and practical help to the patients' Social Club, the Ex-patients' Association, and to sanatorium officers.

Handcrafts and occupational therapy activities continued at a satisfactory level.

5. Officers of the rehabilitation section paid weekly visits and arranged vocational guidance tests, and appropriate instructional courses when required.

6. The Ex-Patients' Association continued its activities, producing several issues of the "Bulletin," a widely-read publication, and meeting at the sanatorium twice during the year on the occasions of the handcraft exhibitions.

Matron D. M. Davison, who was associated with the sanatorium since its opening in 1933, retired at the end of the year. Her untiring energy, administrative ability, and fine personal qualities have aided greatly in the development of the sanatorium.

Projected Works.—These include remodelling of wards 3, 4, 5 and 6, and building of a road to the new linen room.

GREENVALE SANATORIUM.

Acting Medical Superintendent: Dr. S. C. Wigley.

The average number of beds occupied throughout the year was 148.

159 patients were admitted during the year.
143 patients were discharged during the year.
7 patients died in 1952.

The average duration of stay of patients was 366 days. Artificial pneumothorax was used in the management of fifteen cases.

Routine management consisted of rest and chemotherapy, with mobilization after pulmonary lesions have been stabilized. Iso-nicotinic acid hydrazide was introduced into treatment of tuberculosis during the year.

Patients requiring surgical intervention beyond the scope of the sanatorium were referred to the Austin Hospital for operation. Their convalescence was continued at Greenvale after operation.

Rehabilitation services included dressmaking, and other forms of occupational therapy including shorthand and typing. These continued as in previous years An exhibition of handcrafts was held in October, 1952.

Entertainments provided for the patients included a weekly cinema show, and concert and dramatic parties attended the sanatorium at regular intervals throughout the year. The library was added to during the year.

Training of nurse assistants and post-graduate training of nursing sisters was continued during the year.

The health of the staff is of uniformly high standard. No notable illness amongst the staff was recorded. B.C.G. vaccination was offered to all susceptible persons taken on the sanatorium staff.

HEATHERTON SANATORIUM.

Medical Superintendent: Dr. B. Clerehan.

Bed States.

On 1st January, 1952, 175 beds were available for female patients, and on 18th March, the south wing was opened for male patients (70 beds), after having been occupied temporarily by staff during construction of the nurses' home. On 4th August, Henry Watson House was opened as an annexe to the sanatorium with 38 beds for female patients. At 31st December, 1952, a total of 283 beds was available, including the 70 male beds.

Admissions	308
Deaths	18
Discharges	185
Irregular discharges	18
Average stay of patients (dying or discharged during year)	340 days

Henry Watson House.

This annexe was opened on 4th August, 1952, with 38 beds for female patients. These are suitable for convalescent patients and chronically-ill patients whose general condition is good. In addition, it is used for those patients who have to wait some time for selective surgery.

The aim is to give a more comfortable and less restricted régime to those patients who will benefit from it. In addition the beds at Heatherton, which have access to better technical equipment, are freed for patients who need more intensive treatment.

Two visits a week are paid by the medical staff, and the patients have been selected so that there will be a minimum of emergencies: epileptics, asthmatics, and unstable diabetics are excluded as well as sick patients.

The functions of the social club, and the Red Cross Society are maintained at Henry Watson House. The patients themselves perform various duties there as a final part of their convalescence.

Treatment.

Isoniazid became available in June and was used during the year in increasing quantities as supplies improved. Dosage was normally about 200 mgms. per day and this agent was used alone at first.

Isoniazid was later used increasingly in combination with Streptomycin, but lately, Streptomycin and P.A.S. again became the routine combination.

A slightly larger number of patients had operative procedures as shown. Surgery is much less often indicated in the male patients than in the female patients.

This difference is reflected in the average age of the patients:—

Male	46 years
Female (all)	34 years
Female (Henry Watson House)	40 years

The figures for the various forms of intervention were:—

	Male.	*Female.*
Pneumonectomy	1	4
Lobectomy	1	8
Segmental resection	..	6
Thoracoplasty	1	4
Monaldi drainage	..	1
Pneumothorax	1	8
Pneumoperitoneum	..	4
Phrenic nerve crush	..	2
Adhesion section	1	7
Bronchoscopy	5	70

Staff.

With the opening of the nurses' home the position with female staff has improved. Establishments can be maintained, and the staff tend to stay longer.

Strength at 1st January, 1952	141
including—	
Sisters	15
Nurse Assistants	44
Strength at 31st December, 1952	210
including—	
Sisters	24
Nurse Assistants	68

Twenty-four sisters were engaged during the year and fifteen ceased duty. Of the former, eight were still on strength at the end of the year. One hundred and six nurses were engaged during the year and 82 ceased duty. The continued turnover of nurses is the main staff problem.

The training courses for nurse-assistants continue and one examination has been held since June, 1951. Twenty-three nurses have qualified and eighteen remain on the staff, including ten of the twelve in the original course of June, 1951.

Red Cross.

The main work of the Red Cross hospital visitor is the distribution and maintenance of the 1,300-book library. Much attention is devoted to the selection of suitable books for individuals. A feature of the library now is the inclusion of foreign language magazines.

Once a fortnight a number of the convalescent patients are taken for a drive for a couple of hours in the surrounding countryside. This is naturally a very popular feature.

The hospital visitor helps the patients with a lot of their personal shopping, particularly at Christmas time when the presents for the patients from the social club are purchased. Many of the requests from patients do not come within the visitor's sphere but close liaison with the almoner has ensured the maximum of success in all personal matters.

The Red Cross Society has also secured the weekly services of a hairdresser for the female patients, and arranges the fortnightly broadcast from 3XY for the patients. In addition the Red Cross provides similar help at Henry Watson House, when the hospital visitor is assisted by the local voluntary helpers.

The importance of the Red Cross activities is that they help to make the period of treatment sufficiently attractive to many patients who might otherwise decline it.

Patients' Social Club.

This organization has grown with the increase in beds and serves Henry Watson House as well. Difficulties are naturally encountered when the number of up-patients drops; this is shown with the male patients who are less ambulant than the females.

On 22nd November, 1952, an exhibition of handcrafts was held. It was the first of its kind in the sanatorium and was very successful.

Rehabilitation.

The almoner visits weekly, and the rehabilitation medical officer visits as required. The rehabilitation services include Henry Watson House. For the patients here the provision of suitable accommodation after discharge is very important, and in this respect the almoner service is most helpful in checking the facilities, suitability and cost of the accommodation available.

The provision of training courses for suitable patients has been continued.

AUSTIN HOSPITAL.

Senior Sanatorium Medical Officer: Dr. P. Bull.

Staff.

Visting Physician—Dr. C. H. Fitts.

Thoracic Surgical Teams :—

1.	Mr. C. J. O. Brown ..	Surgeon.
	Mr. K. N. Morris ..	Assistant Surgeon.
	Dr. J. Houseman ..	Anaesthetist.
2.	Mr. J. I. Hayward ..	Surgeon.
	Dr. L. Williams ..	Assistant Surgeon.
	Dr. R. Cole	Anaesthetist.
3.	Mr. I. H. McConchie ..	Surgeon.
	Dr. M. Allen ..	Assistant Surgeon.
	Dr. G. V. Stanton ..	Anaesthetist.

Occupied beds :—Male, 35, female, 35 ; children, 30.

Unoccupied beds :—53.

Medical.

Thoracic surgery continued as the major activity of the unit throughout the year. Resection has more and more replaced major collapse therapy. In 1952, two resections were performed for every major collapse operation (in 1951 the numbers were approximately equal and in 1950 there were two collapse operations for each resection).

In addition to major surgery the unit continued to perform minor surgical procedures on patients transferred for short periods from other sanatoria and referred from the chest clinics. The advent of water soluble, rapidly absorbable contrast media for bronchography has placed a new diagnostic tool in our hands and the demand for this investigation has increased.

The follow up clinic for ex-surgical patients is working very satisfactorily and in December a survey of the first 100 patients undergoing resection at this hospital was made ; the average length of follow up was 30 months and 85 patients were alive, 65 of them having resumed full activity. When it is realized that a large number of these early resections were done on desperate risk patients, the figures compare very favorably with similar series in other centres.

The new operating theatres were completed at the end of 1952, ready for use in 1953.

Nursing Staff.

Nursing staff is still very short and in consequence 53 beds remain unoccupied.

Amenities.

Pillow-phones and a three-channel wireless have been installed throughout the hospital and have provided a much needed facility. Included in this unit is a well-equipped studio, and internal broadcasts are arranged for patients' entertainment. Visiting concert parties perform in Zeltner Hall and their programmes are relayed to bed patients.

Occupational therapy has been placed on a much sounder basis and the majority of patients are now doing craft work.

A further part-time school teacher has been provided for the children's ward.

Operations, Austin Hospital, 1952.

Type of Operation.	Total Number of Operations	Patients.	Male.	Female.	Results (Austin Patients only).					
					Number of Patients.	Arrested.	Imp.	I.S.Q.	Worse.	Died.
Thoracoplasty	78	40	23	17	40	..	33	5	..	2
Anterior stage thoracoplasty ..	4	4	2	2	4	..	1	2	1	..
Pneumonectomy and thoracoplasty	21	21	6	15	21	..	19	1	..	1
Lobectomy, including segmental resection	59	59	23	36	59	..	57	2	..	..
Post lobectomy thoracoplasty ..	9	9	3	6	9	..	9	..	..	..
Monaldi drainage	8	8	4	4	8	..	3	4	1	..
Phrenic Nerve Operations.										
Phrenic crush	24	24	12	12	..	..	..	..	..	..
Phrenic re-crush	4	4	1	3	..	..	..	..	..	..
Phrenic avulsion	3	3	3	..	..	..	..	..	..	..
	31	31	16	15						
Thoracoscopy	19	19	7	12	1	..	..	1	..	..
Thoracoscopy and adhesion section	34	34	21	13	1	..	1	..	..	..
Thoracotomy	3	3	3	..	3	..	2	1	..	..
Bronchoscopy	225	220	85	135	..	..	..	..	..	..
Drainage and plastic of empyema	8	6	5	1	6	..	3	1	..	2
Cavernostomy	2	2	1	1	2	..	2	..	..	..
Extra pleural pneumothorax ..	1	1	1	..	1	..	1	..	..	..
Drainage of sub-scapular space ..	4	3	1	2	3	..	1	1	..	1
Partial scapulectomy	2	2	2	..	2	..	2	..	..	..
Bronchial anastomosis	2	2	..	2	2	..	2	..	..	..
Costoplasty	2	2	..	2	2	..	1	..	..	1
Evacuation and haemothorax and decortication of lung ..	4	4	3	1	4	..	4	..	..	..
Extra periosteal plombage ..	2	2	1	1	2	..	2	..	..	..
Evacuation of extra pleural haemothorax	1	1	1	..	1	..	1	..	..	..
Artificial pneumothorax ..	2	2	1	1	..	..	..	..	..	..

Statistics.

—	Males.	Females.
Total number of admissions	206	231
Total number of discharges	180	230
Total number of deaths ..	13	8

Average duration of stay of patients—94 days.

FAIRFIELD CHEST UNIT.

Medical Officer: Dr. M. Renth.

There were 170 admissions and 163 discharges to Fairfield chest unit, which included short-term surgical cases, whose stay was from three days to three weeks.

In this period, 9 deaths occurred and 14 pneumothoraces were conducted, of which one was an extrapleural. Including the short-term patients, the average stay was about 130 days.

In the month of August, 25 male patients were discharged to other sanatoria and 25 female patients were admitted.

An exhibition of handcrafts was held in December, which was most successful and all the articles for sale were sold, the money being added to the ward fund.

A Red Cross worker is in attendance four days a week, giving invaluable assistance with the library and shopping for the patients. Members of the Apex Club have been most helpful in arranging a picture night each week, which is greatly appreciated by the patients.

ELEANOR SHAW CHALET AND DUNSTAN CHALET.

Visiting Physician: Dr. S. C. Wigley.

The Dunstan Chalet provided accommodation for 19 male patients, and the Eleanor Shaw Chalet for 12 female patients. The conditions governing their admission are that they are suffering from chronic tuberculosis, that they are ambulatory, and that their social state prevents their being nursed at home.

A medical officer from the Tuberculosis Branch visits the chalets twice weekly, and advises treatment for their tuberculous condition. The medical officers at Mount Royal—Dr. Allan McCutcheon and Dr. Joan Melville—pay daily visits, and attend to the problems of general medical conditions.

Owing to the nature of their disease and the conditions governing their admission, the stay of many patients in the chalets is a long one. In the period under review, there were 12 admissions to and 4 discharges from Dunstan Chalet with 1 death, and 5 admissions to and 3 discharges from Eleanor Shaw Chalet with 3 deaths.

The comfort and contentment of the inmates is due to the sympathetic understanding of Colonel Elliott, the superintendent of Mount Royal, and the helpful co-operation of his staff.

TUBERCULOSIS CHALET, BALLARAT.

Visiting Physician: Dr. G. T. James.

During 1952, 30 new cases were admitted from various centres in the north-western area. There were 31 discharges and two deaths. The average stay in hospital was 131 days. The value of Iso-nicotinic acid as an adjuvant to Streptomycin would appear to be proved. All pneumothorax refills were carried out at the chalet—116 in all—ten patients receiving this treatment. The greatest single innovation was undoubtedly the establishment of the surgical unit. It made a very successful beginning last year and it is hoped that this year will see the scheme firmly established. The frequent discussions with a member of the surgical staff from Melbourne and the radiologist at the hospital are invaluable. All patients who eventually receive surgical treatment are advised to do so only after very careful consideration of all aspects of their condition.

KING EDWARD VII. MEMORIAL CHALET, BENDIGO.

Visiting Physician: Dr. W. Rosenthal.

During the year ended the 31st December, 1952, the 24 beds of the chalet were fully occupied other than for short periods between discharges and admissions, and during patients' stay at Austin Hospital while undergoing surgery.

Patients proposed for surgery were reviewed in consultation with Dr. Leslie Williams at her quarterly visits to the Bendigo Chalet. Ten patients, nine female and one male, were transferred to the Austin Hospital and of these, three underwent major surgery and two adhesion section.

Total admissions to the chalet during the period under review were fourteen male and 22 female, total of 36. Discharges numbered 14 male and 20 female, a total of 34. There were 2 male deaths and 1 female, a total of 3. The average duration of stay was 310 days.

Chemotherapy was extensively used during the year and full use was made of collapse therapy by means of pneumothorax, pneumo-peritoneum and phrenic crush. In-patients and out-patients treated with artificial pneumothorax numbered 10, pneumo-peritoneum and phrenic crush 1, a total of 11; 201 individual refills were given.

Extensive library facilities were available for patients, and a motion picture show was given at regular intervals.

GEELONG CHALET.

Visiting Physician: Dr. D. F. L. Seward.

During 1952 the previous shortage of nursing staff eased, and it became possible to staff the chalet to its capacity of 30 patients, and on occasions this number was exceeded. It has also been a great asset having a sister in charge, who has had experience in nursing tuberculosis patients.

There were 38 admissions, and 31 discharges during the year, and there were no deaths.

Artificial pneumothorax was performed in the case of 4 patients, and pneumoperitoneum in 1 case. The average duration of stay of the patients discharged was ten months.

The installation of three-channel radio system with headphones to each bed was completed, and has been greatly appreciated by the patients.

The weekly picture night has been continued throughout the year and provides very good entertainment. The expenses for this have been covered by proceeds from the hospital kiosk. At Easter and Christmas special programmes were arranged.

The Red Cross Society has again helped very greatly by giving instruction to patients in handcrafts, and ambulatory patients now, in addition, attend the Red Cross Centre nearby for further instruction.

HAMILTON CHALET.

Visiting Physician : Dr. C. Sawrey.

Normal routine has been followed throughout the year and there has been nothing outstanding to report.

A visiting consultant made three visits to the chalet during the twelve months. Her helpful suggestions in difficult cases were much appreciated.

Certain minor but necessary structural alterations have been made to the building.

One of the main difficulties in a small chalet is to maintain the morale of the patients. In this regard the assistance of a small but devoted band of outside women helpers who instruct patients in craft work and other forms of diversional therapy is acknowledged with gratitude. Thanks are also due to the manager of the Regent Theatre, Hamilton, who gives up some of his very limited leisure time to run the projector on picture nights.

Statistics for the year are :—

Total admissions	27
Discharges	11
Deaths	5
There were 11 patients in the chalet at the end of the year	
Total artificial pneumothoraces ..	40
Average duration of stay ..	23 weeks.

HORSHAM CHALET.

Visiting Physician : Dr. T. Walpole.

At the commencement of the year there were 13 patients in the chalet (7 female and 6 male). During the year 14 cases were admitted (5 female and 9 male) and 12 patients were discharged (6 female and 6 male). These together with 1 male death left 14 patients at the end of the year (6 female and 8 male). One patient was discharged and re-admitted during the year, so that 26 individual patients were treated. Their average duration of stay was 197 days.

Of the twelve discharges, five were precariously controlled. One of these had to be transferred to the Ballarat Mental Hospital. Six were satisfactorily controlled with good prospects of eventually resuming normal activities. One patient absconded but was making satisfactory progress at the time.

The patient who died proved at autospy to be a case of extensive lung carcinoma without evidence of recent tuberculosis.

Four patients were transferred temporarily to the Austin Hospital, 2 for thoracoscopy and pneumolysis, 1 for lobectomy, and 1 in preparation for thoracoplasty.

Five patients were treated with artificial pneumothorax. Two of these proved unsatisfactory and their treatment was discontinued.

Seventy-two pneumothorax refills were made. One patient was treated with pneumoperitoneum—22 refills being made. Phrenic crush was carried out in 2 cases.

At no time during the year has it been found necessary to keep a waiting list, although the chalet has held up to 16 patients for short periods.

MILDURA CHALET.

Visiting Physician : Dr. J. S. Bothroyd.

The results of treatment have been most encouraging and are due to—

(1) rest facilities ;

(2) anti-biotics ;

(3) a very favorable climate.

The chalet type of building is most satisfactory from a patient's point of view. The patients appear to be very contented and despite long stays in the chalet present no difficulties except in certain very isolated cases.

The library and handcraft services are very well patronized. The librarian visits at very frequent intervals, repairing the books, and maintaining the library in excellent order. The arrangement by the Director of Tuberculosis whereby Dr. L. Williams visits the Chalet at quarterly intervals is a very happy one. Her visits are very much appreciated because of the advice and help that she gives. Both patients and the visiting physician gain very appreciably by these visits.

Statistics :—

Admissions	14
Discharges	12
Deaths	1
Average stay	130·5 days.

Total number of pneumothoraces conducted :—

Artificial pneumothoraces ..	Nil
Artificial pneumothoracic refills .	36

SALE CHALET.

Visiting Physician : Dr. G. J. B. Baldwin.

The Sale Chalet had a busy year in 1952 during most of which all 40 beds were occupied and a waiting list for male and female cases was existing.

The number of admissions was 43, deaths 3, and discharges numbered 37. The average duration of stay of the patients was 158 days. There were 8 patients transferred to the Austin Hospital, 5 of whom had major surgery.

Three artificial pneumothoraces were induced and 129 refills carried out. One pneumoperitoneum was induced and 23 refills carried out. These refill figures are increased owing to the increase in size of the out-patient's clinic being conducted at the chalet. All Gippsland district patients on discharge attend the Sale Chalet for follow-up.

Three phrenic crushes were performed and for this service, along with other emergency surgical procedures, gratitude is expressed to the honorary surgeons to the Gippsland Base Hospital. One chalet patient was confined successfully in the maternity section of the hospital during this period. The work of the staff was of a high qaulity and appreciation of the work of the four English sisters, who came direct to Sale for the chalet section, is recorded.

The social club continued its useful activities during the year and what it lacks in numbers it makes up in enthusiasm. Assistance to the club was given, as usual, by the Sale branch of Red Cross. The work of the members of this branch cannot be overpraised. They visited regularly and taught arts and crafts to the patients, such an essential feature of treatment, and also supplied comforts. The 3TR Women's Club again was most generous to the chalet patients, providing extra amenities for their happiness and well being.

WARRNAMBOOL CHALET.

Visiting Physician : Dr. H. J. Barbour.

The bed position was fairly satisfactory, only for short periods was there any waiting list.

Admissions	23
Discharges	23
Deaths	1
Average duration of stay	336 days.

Seven pneumothoraces and two pneumoperitonei were conducted on in-patients, 101 refills being administered. One hundred and forty refills were administered to ten out-patients during the year.

MOOROOPNA CHALET.

Visiting Physician : Dr. J. B. McMiken.

During this period 40 patients were admitted, 34 were discharged and one died.

Artificial pneumothoraces were satisfactorily induced into three patients. The average duration of stay of patients was 149 days.

The continued interest and efforts on the part of the Red Cross handcrafts section, and the Mooroopna Red Cross Auxiliary in the welfare and happiness of the patients are very much appreciated.

WANGARATTA CHALET.

Visiting Physician : Dr. J. B. McMiken.

A successful year of treatment was apparent, the more widespread use of the antibiotic drugs now available offering new hope for tuberculosis sufferers.

Admissions, Discharges and Deaths.

——	Males.	Females.	Total.
Admitted	11	7	18
Discharged	10	4	14
Deaths	. .	1	1

Artificial pneumothoraces conducted.—104.

Average duration of stay.—20 weeks.

Immunization of contacts and nursing staff of the hospital was again carried out, 24 contacts and 17 of the staff being Mantoux tested ; of these 11 contacts and 9 of the nursing staff were vaccinated with B.C.G.

The Country Women's Association undertook a distribution of clothing through the Victorian Tuberculosis Association.

3SR Friendship Club donated lounge covers and the members also provided Christmas dinner and weekly refreshments for the chalet patients.

The Catholic Ladies Guild have continued their fortnightly donation of oranges.

Voluntary workers undertook the arduous task of handcraft instruction during the year.

REHABILITATION SECTION.

Work of the rehabilitation section is discussed under two headings and relevant statistics appended.

Sanatoria.

1. Visits to sanatoria have continued and guidance of male patients increased. Procedure of vocational guidance varied from last year in so far as visits of Commonwealth Employment Service Officers were discontinued as it was found too difficult to plan for re-employment far in advance owing to changing conditions of the labour market. Study courses by correspondence have increased as a result of increased vocational guidance. Placement of youths of apprenticeship age presents a problem. We have been aided in this by help from the Apprenticeship Commission. It is hoped to extend such help by instituting visits from one of their senior officials to deal directly with appropriate cases. The introduction to business methods of women patients in sanatoria has been successful and is likely to be a permanent feature of sanatoria rehabilitation. These patients are now providing a reserve from which State and Commonwealth are able to recruit trained and efficient office staff.

Post-Sanatoria (and Bureaux).

2. Close liaison between the Departments of Labour and National Service and of Social Services has been maintained as well as with private firms. Job placement has been more difficult this year, particularly so in the case of New Australians because of language difficulties and varied skills. It has not been possible to place all patients satisfactorily ; some are working and living in unsuitable conditions and some are at present unemployed.

Particular attention is drawn to the expansion of purely medical social work. The division is indebted to The Victorian Tuberculosis Association and Red Cross Association for much assistance.

Statistics.

General.

Patients seen	413
Sanatorium interviews	233
Vocational guidance tests	91
Referred for full-time work	179
Rehabilitation training	136
Correspondence courses	64
Training in home and hospital	54
Home occupational therapy	20
Referred to Apprenticeship Commission	9
Work and training follow-up	218

Medical Social Work.

Queries and investigations for Commonwealth	165
Children placed for adoption or in homes	11
Accommodation facilitated	53
Financial aid (provided by Victorian Tuberculosis Association)	53
Help with bedding and clothing	53
Social problems handled	80

DIVISION OF CHEST X-RAY SURVEYS.

The work of the division has proceeded in a very satisfactory manner during the past year ; the additional space and added facilities at Milton House have afforded us the opportunity of enlarging the scope and rate of our work.

The number of field surveys totalled 222 as against 126 in 1951. There was a corresponding increase in the number examined.

A noteworthy adjunct to the surveys is the liaison with B.C.G. campaign being conducted by the Tuberculosis Branch for those between the ages of 13 and 17 years. Before most surveys, adolescents in the above age group are Mantoux tested and given B.C.G. vaccine. If positive, they are advised to have an X-ray as soon as the survey commences, which on the average is approximately one month later.

The panel of readers for the division has been increased considerably during the past year and now numbers approximately 28. This has been of great advantage, in that films are able to be read much more quickly, and consequently results can be forwarded much sooner than was previously the case, a factor which is very much appreciated by the examinees.

A further advance during the year was the opening of a fixed centre adjacent to the main concourse of the Spencer Street railway station. In the establishment of this centre, the co-operation and help given us by the Commissioners of the Victorian Railways must be recorded. The centre itself is found to be filling a very necessary want at the western end of the city. This is borne out by the attendances, for although it was not opened until late in August, 1952, by the end of the year 2,564 miniature films had been taken—in spite of the fact that very little publicity was given the centre in its initial first two months of operation. This centre will also take over the work previously performed at the South Melbourne Town Hall, a static centre which closed at the end of the year.

Dr. John O'Sullivan has acted as consultant radiologist for the division during the past twelve months.

As would be expected from the numbers X-rayed the number of proved or possible active cases of tuberculosis found by the division rose on the figure of the previous year, viz., 1,384 compared with 767, representing 0·338 per cent. of the number X-rayed (1951—0·277 per cent.). An exact statement of the number of proven cases of pulmonary tuberculosis is not practicable since many of the suspect cases are still under investigation or observation by their own doctors, particularly in country areas.

(*a*) *Number of persons examined.*

—	Males.	Females.	Total.
Metropolitan area	73,818	80,138	153,956
Country areas	82,920	83,386	166,306
Industrial organizations . .	16,828	3,921	20,749
Commonwealth Government establishments	14,149	1,892	16,041
State Government establishments	5,928	1,681	7,609
Miscellaneous surveys	1,885	741	2,626
Fixed centres	20,476	20,548	41,024
Total	216,004	192,307	408,311

(*b*) *Proved or possibly active tuberculosis.*

—	Males.	Females.	Total.
Metropolitan area	251	265	516
Country areas	274	271	545
Industrial organizations . .	55	13	68
Commonwealth Government establishments	50	6	56
State Government establishments	23	10	33
Miscellaneous	6	2	8
Fixed centres	79	79	158
Total	738	646	1,384

(*c*) *Healed or quiescent tuberculosis.*

—	Males.	Females.	Total.
Metropolitan area	1,389	1,548	2,937
Country areas	1,620	1,614	3,234
Industrial organizations . .	369	115	484
Commonwealth Government establishments	307	40	347
State Government establishments	136	54	190
Miscellaneous surveys	40	19	59
Fixed centres	471	476	947
Total	4,332	3,866	8,198

(*d*) *Non-tuberculous abnormalities.*

—	Males.	Females.	Total.
Metropolitan area	1,513	1,551	3,064
Country areas	1,390	1,378	2,768
Industrial organizations . .	344	151	495
Commonwealth Government establishments	278	42	320
State Government establishments	118	44	162
Miscellaneous surveys	41	27	68
Fixed centres	417	410	827
Total	4,101	3,603	7,704

Number of surveys conducted.

—	1951.	1952.
Metropolitan	17	28
Country	57	130
Industrial	33	38
Commonwealth Government establishments	8	17
State Government establishments . .	9	5
Miscellaneous	2	4
Total	126	222

MANTOUX TESTING—B.C.G. VACCINATION SECTION.

The work of the B.C.G. vaccination section during 1952 can be divided into two parts.

1. School campaigns.
   B.C.G. vaccine was offered to school children of 13 years and over.
2. B.C.G. vaccination of young adults.
   This group was made up of National Service trainees, university students, and student nurses.

School Campaigns.

During 1952 the campaigns were carried out along the same lines as in 1951. Schools were visited in both metropolitan and country districts. Parental consent to B.C.G. vaccination was obtained in 91·42 per cent. of cases (Table 1).

The statistical details of the campaigns are set out in Table 1.

B.C.G. vaccination of young adults.

In January, 1952, the first B.C.G. vaccination campaign for National Service Trainees in Victoria was carried out. Air Force stations at Point Cook, Laverton and Tottenham were visited. Trips were made to Flinders Naval Depot and Puckapunyal Military Camp. Nearly 100 per cent. of trainees volunteered for B.C.G. vaccination.

The co-operation throughout these campaigns has been excellent and the assistance given by hospital and Regimental Army and Air Force establishments was greatly appreciated. The statistical details of these campaigns are set out in Table 2.

Other young adults receiving B.C.G. vaccine during 1952, included the following groups :—

First year University students (including some Medical Students).

Dental hospital students, nurses and technicians.

Student nurses at the Melbourne School of Nursing.

Details of these campaigns are set out in Table 2.

TABLE 1.—B.C.G. VACCINATION CAMPAIGNS, 1952.

Children 13 Years and Over attending School.

(*a*) *Metropolitan Area and Provincial Cities.*

—	Positive Reactors.	Consent.	Total Tuberculin Tested 1 : 1000 O.T.	Number Negative (given B.C.G.).	Number Positive.	Number Absent.	Number Non-consent.
	%	%					
Caulfield, February–March ..	8·5	98·2	798	730	68	27	15
Brighton, April	8·0	90·6	1,114	1,025	89	83	134
Ballarat, April–May	10·7	90·0	1,641	1,465	176	35	187
South Melbourne, June	11·7	83·8	1,322	1,167	155	86	169
Port Melbourne, June	16·2	88·1	37	31	6	7	5
Oakleigh, July	8·3	91·4	468	429	39	54	49
Mulgrave, July	11·8	70·8	17	15	2	..	7
Geelong, July	8·0	92·1	2,605	2,397	208	81	231
Ringwood, July	12·2	77·0	41	36	5	3	13
Essendon, August	11·3	86·7	1,320	1,171	149	53	210
Box Hill and Nunawading, August	9·0	92·4	964	877	87	97	88
Richmond, August	14·1	90·5	625	537	88	48	71
Footscray, September	12·9	92·5	886	772	114	91	79
Williamstown, September ..	14·6	89·9	225	192	33	16	27
Malvern, November	8·4	85·6	1,297	1,188	109	63	228
	9·9	90·3	13,360	12,032	1,328	744	1,513

(*b*) *Country Areas.*

District.	Positive Reactors.	Consent.	Total Tuberculin Tested 1 : 1000 O.T.	Number Negative (given B.C.G.).	Number Positive.	Number Absent.	Number Non-consent.
	%	%					
Kyneton, February	6·1	90·0	215	202	13	9	25
Castlemaine, February	7·5	95·3	321	297	24	6	16
Daylesford, March	11·5	93·8	148	131	17	18	11
Maryborough Clunes } March	3·1	93·2	297	288	9	18	23
Warrnambool, March	6·6	97·4	457	427	30	15	12
Hamilton Portland Coleraine } June	5·0	87·1	625	594	31	30	63
Mortlake Port Fairy } June	3·1	90·3	65	63	2	3	4
Gippsland, September–October ..	10·9	94·6	3,762	3,353	409	303	233
Lilydale, December	13·6	80·0	59	51	8	25	21
	9·1	93·9	5,949	5,406	543	427	408
School children 13 and over ..	9·7	91·4	19,309	17,438	1,871	1,171	1,921
National Service Trainees and students	20·4	..	7,208	5,740	1,468	..	..
	12·6	..	26,517	23,178	3,339	..	..

TABLE 2.—NATIONAL SERVICE TRAINEES, STUDENTS, AND STUDENT NURSES.

—	Total Tuberculin Tested 1 : 1000 O.T.	Negative Reactors (given B.C.G.).	Positive Reactors.	Positive.
National Service Trainees.				
				%
Flinders Naval Depot—				
February	411	303	108	26·28
August	289	226	63	21·79
Puckapunyal Military Camp—				
January	1,843	1,536	307	16·65
April	1,406	1,141	265	18·85
August	1,222	1,030	192	15·71
Air Force Station (Laverton, Point Cook, Tottenham)—				
January	296	236	60	20·27
April	304	254	50	16·45
July	264	232	32	12·12
October	434	362	72	16·59
Total National Service Trainees	6,469	5,320	1,149	17·76
Dental Hospital students, May	183	59	124	67·76
University students (first year), March	298	186	112	37·9
Student nurses at Melbourne School of Nursing—				
February	80	47	33	41·25
May	91	66	25	27·47
August	51	36	15	29·41
October	36	26	10	27·78
Total students	739	420	319	43·17

TUBERCULOSIS BRANCH.

Director of Tuberculosis ..	E. V. Keogh, M.B., B.S., F.R.A.C.P.
Deputy Director of Tuberculosis; Diagnostic Services	H. M. James, M.B. et Ch.B.
Deputy Director of Tuberculosis; Sanatoria and Chalets	Dr. D. B. Rosenthal, M.D., B.S., M.R.C.P.
Supervisor of Mass X-ray Surveys	Dr. A. H. McNaughton, M.B., B.S.
Tuberculosis Officer (Country)	K. G. Kerr, M.B., B.S., D.P.H.
Rehabilitation Medical Officer	J. O'Rorke, L.R.C.P., L.R.C.S.
Secretary..	J. L. Eabry, B.Com., A.F.I.A.

CONSULTANT PANEL, DEPARTMENTAL TUBERCULOSIS COMMITTEE.

Professor Sir P. MacCallum, M.A., M.Sc., M.B., Ch.B., D.P.H., R.C.P.S., M.R.C.P., F.R.S.E., F.R.A.C.P.
Professor Sir F. McF. Burnet, M.B., B.S., F.R.S., D.Sc.
Professor S. Rubbo, M.B., B.S., Ph.D., Dip.Bact., B.Sc., M.P.S.
Sir W. S. Newton, M.D., F.R.A.C.P.
C. H. Fitts, M.D., D.T.M., M.R.C.P., F.R.A.C.P.
W. W. S. Johnston, M.D., F.R.A.C.P.
A. Penington, M.D., B.S.
J. I. Hayward, M.D., M.S., F.R.C.S.
C. J. Officer Brown, M.D., F.R.C.S., F.R.A.C.S.
J. O'Sullivan, M.B., B.S., D.M.R.E., F.R.A.C.P., F.F.R.
K. Hallam, B.A., M.B., B.S., D.M.R.E.
C. F. MacDonald, M.B., B.S., D.M.R.E., F.R.A.C.P., F.F.R.
J. B. D. Galbraith, M.D., F.R.A.C.P.
C. E. Eddy, D.Sc., F. Inst. of P.
W. Newing, M.D., F.R.A.C.P.

INSTITUTIONS.

Sanatoria.	*Medical Superintendent.*
Gresswell	D. B. Rosenthal, M.D., B.S., M.R.C.P.
Greenvale	S. C. Wigley, M.B., B.S., M.R.C.P. (Acting)
Heatherton ..	B. Clerehan, M.B., B.S.

Hospitals.	*Medical Officer in Charge.*
Austin	P. Bull, M.D., B.S.
Fairfield Chest Unit	Dr. M. Renth.
Eleanor Shaw and Dunstan Chalets	S. C. Wigley, M.B., B.S., M.R.C.P.

Country Chalets.	*Visiting Physician.*
Ballarat	G. T. James, M.D., B.S.
Bendigo	W. Rosenthal, M.B., B.S.
Hamilton	C. E. Sawrey, M.B., B.S., M.R.A.C.P.
Horsham	T. V. Walpole, M.B., B.S.
Mildura	J. S. Bothroyd, M.D., M.S.
Sale	G. J. B. Baldwin, M.B., B.S., M.R.A.C.P.
Wangaratta ..	J. B. McMiken, M.B., Ch.B., M.D., D.D.R.
Mooroopna ..	
Warrnambool ..	H. J. Barbour, M.B., B.S.
Geelong	D. F. L. Seward, M.B., B.S.

VITAL STATISTICS.

VICTORIA—1952.

Year.	Deaths.						
	Pulmonary Tuberculosis.			Non-Pulmonary Tuberculosis.			All Forms.
	Male.	Female.	Total.	Male.	Female.	Total.	
1933	401	336	737	70	51	121	858
1934	419	334	753	76	60	136	889
1935	430	331	761	62	55	117	878
1936	394	368	762	63	45	108	870
1937	410	303	713	42	52	94	807
1938	371	306	677	41	46	87	764
1939	433	323	756	51	39	90	846
1940	436	291	727	35	49	84	811
1941	469	300	769	50	57	107	876
1942	460	331	791	46	42	88	879
1943	410	230	640	47	57	104	744
1944	422	257	679	41	33	74	753
1945	382	267	649	41	40	81	730
1946	404	246	650	32	29	61	711
1947	391	221	612	31	34	65	677
1948	367	214	581	36	24	60	641
1949	381	160	541	20	26	46	587
1950	282	110	392	18	22	40	432
1951	259	100	359	25	23	48	407
1952	216	87	303	23	20	43	346

ANNUAL DEATH RATE PER 1,000,000.

Year.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Tuberculosis (All Forms).	Year.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Tuberculosis (All Forms).
1933	405	66	471	1943	323	52	375
1934	411	74	485	1944	340	37	377
1935	414	64	478	1945	323	40	363
1936	412	59	471	1946	330	34	364
1937	384	51	435	1947	306	32	338
1938	363	47	409	1948	278	29	307
1939	402	48	450	1949	250	21	271
1940	383	44	427	1950	178	18	196
1941	397	55	452	1951	158	21	179
1942	402	45	447	1952	130	18	148

TOTAL BED CAPACITY—31ST DECEMBER, 1952.

—	Male.	Female.	Total.
Gresswell Sanatorium, Mont Park	192	..	192
Heatherton Sanatorium, Cheltenham	70	198	268
Henry Watson House	..	38	38
Greenvale Sanatorium, Broadmeadows	..	236	236
Fairfield Chest Unit, Fairfield	25	25	50
Austin Hospital, Heidelberg	81	35	116
Austin Hospital (Children's Ward)	15	15	30
Dunstan Chalet, Royal Park	19	..	19
Eleanor Shaw Chalet, Royal Park	..	12	12
Bendigo Chalet	14	10	24
Ballarat Chalet	10	10	20
Geelong Chalet	15	15	30
Mildura Chalet	7	7	14
Hamilton Chalet	7	7	14
Horsham Chalet	7	7	14
Wangaratta Chalet	7	7	14
Sale Chalet	20	20	40
Warrnambool Chalet	7	11	18
Mooroopna Chalet	15	14	29
	511	667	1,178

BUREAUX ATTENDANCES—METROPOLITAN AND COUNTRY.

Bureau.	New Cases Applying.	Total Attendances—Old and New Cases.	X-ray Examinations.		A.P. Refills Attendances.
			Films.	Screens.	
Central	4,542	33,048	24,431	4,656	3,002
Ballarat	223	1,338	984	..	123
Bendigo	589	3,287	1,568	108	110
Geelong	294	1,893	1,150	186	188
Prahran	2,737	5,734	7,617	..	35
	8,385	45,300	35,750	4,950	3,458

SANATORIA ACTIVITIES.

Institutions.	Admissions.		Discharges.		Deaths.	
	Male.	Female.	Male.	Female.	Male.	Female.
Metropolitan.						
Austin	206	231	180	230	13	8
Greenvale	5	154	2	141	..	7
Gresswell	239	..	219	..	7	..
Heatherton	74	234	15	188	6	12
Henry Watson House	..	32	..	10	..	..
Fairfield Chest Unit	51	119	53	110	3	6
Dunstan Chalet	12	..	4	..	1	..
Eleanor Shaw Chalet	..	5	..	3	..	3
Total	587	775	473	682	30	36
Country.						
Ballarat	15	15	12	19	1	1
Bendigo	14	22	14	20	2	1
Geelong	19	19	16	15	..	..
Horsham	9	5	6	6	1	..
Hamilton	12	15	5	6	2	3
Mildura	10	4	5	7	1	..
Mooroopna	18	22	18	16	1	..
Sale	16	27	19	18	2	1
Wangaratta	11	7	10	4	..	1
Warrnambool	15	8	10	13	1	..
Total	139	144	115	124	11	7
Total in Metropolitan and Country Institutions	726	919	588	806	41	43

Bureau Services—Visiting Nurses.

Bureau.	First Visits.	Revisits.
Central	718	9,631
Ballarat	19	848
Bendigo	49	370
Geelong	14	408
Prahran	40	126
Total	840	11,383

Mothers arriving at the Infant Welfare Centre, Brooklyn Migrant Hostel.

INFANT WELFARE WORK IN MIGRANT CENTRES.

Weighing Baby.

Photographs by courtesy—
News and Information Bureau,
Department of the Interior.

REPORT OF THE DIRECTOR OF MATERNAL, INFANT, AND PRE-SCHOOL WELFARE, 1952-53

INTRODUCTION.

During the past year there have been many heartening signs of a more widespread interest in child health and of a closer liaison between clinical and preventive services. The failure to achieve this in the past was one of the weaknesses of the service and the diminution of the gap between midwifery hospitals and infant welfare centres will make for an increased efficiency and effectiveness of both branches of the work.

Perhaps the most important advance has been the provision for knowledge of field work in child health in the medical curriculum. All students visit the Department and are given a brief talk on administration and the aims and objects of the services subsidised through the Division. The talk is followed by a bus tour of a municipality under the guidance of a child welfare medical officer, and infant welfare centres, day nurseries, play centres, nursery kindergartens and emergency housekeeper centres are all visited. Emphasis is placed on the value of these centres and the responsibility of medical officers of health in regard to these services. At a later date, time is also spent at one or other of the four infant welfare training schools and at the Lady Gowrie Centre.

In a slightly different way the modern approach to good nursing is being supplied by the provision of the Child Care Course for nursing bursary holders. This one year course is provided for students in receipt of nursing bursaries who are too young to commence nursing training in hospital. These students work in day nurseries and kindergartens. Lectures on child care are provided one afternoon each week and the students' work in centres is supervised by an officer of this Department. Thus nursing training is prefaced by practical experience with well children and an understanding of their needs, giving the student nurse a confident and calm approach to her training and a deeper insight into the needs of her patients.

Lectures on child health are also given by officers of the Department to those taking the Sister Tutors Course at the Australian College of Nursing, and lectures on the work of the Department are given by the Director to students taking Social Studies Courses at the University.

The late notification of births received is still a matter for concern in certain areas but increased interest in infant welfare was evidenced by matrons of midwifery hospitals at a recent conference held at the Women's Hospital. Dr. N. Kelso, a medical officer of this Department, addressed a meeting of the conference, emphasising the importance of the mother-child relationship and its corollary natural feeding, as well as ways in which hospital and infant welfare services might be integrated. Many of those present expressed a wish that infant welfare sisters visit maternity wards regularly to see mothers from their districts and asked for information in regard to location of centres.

The new After Care Home at Kew for mothers from the Women's Hospital is now occupied. It is a most attractive building comprising two units, each with its own large sunroom and providing ward accommodation for 25 mothers. Very satisfactory results in regard to breast feeding are obtained and the medical superintendent is anxious that this good beginning should continue. He has asked that officers from the Department visit weekly to interest mothers in attending centres and to provide any further information required in regard to the service.

Departmental officers are also providing regular lectures and demonstrations for air hostesses. These are given at the request of Trans Australia Airlines and are planned with the object of aiding the airlines staff in giving mothers travelling with young children more efficient help.

Our mothercraft lectures in schools are creating much interest and the demand for the service is increasing as figures given in the report indicate. The lectures are given by staff from two voluntary organisations, a full-time Departmental officer and a number of sisters in country areas.

With the expansion of the field and the opening up of new channels of service there is also a changing emphasis on requirements for child health. A book which has created world wide interest is a report prepared for World Health Organisation by Dr. John Bowlby of the Tavistock Clinic, London. The report is primarily concerned with deprived children and the harmful effects of institutional life which deprives a child of love and continuous close relationship with his mother or substitute mother. The effects of such deprivation are especially injurious to children in the first years of life, i.e., before the age of three years. Bowlby emphasises in the report the need for this warm continuous relationship for all children if good foundations for mental health are to be laid.

The responsibility for helping mothers to recognize their children's needs rests with our infant welfare sisters. They are the people who handle 69 per cent. of babies born in the State and have access to homes and families not available to any other workers in the health field. As stressed in my last report, their present training is inadequate for the added responsibilities entailed by advances in knowledge of child health.

The curriculum requires constant examination and revision to meet modern needs and advancing knowledge. Through the infant welfare section of the Victorian College of Nursing the sisters themselves asked for alterations and additions to the present training. A sub-committee was set up by the Nurses Board to make recommendations in this regard. The committee consisted of nursing and medical personnel from the various infant welfare training schools who were directly concerned with the training course, together with representative officers from the Department of Health. This committee suggested certain modifications to the present curriculum which were possible because of the fact that the midwifery certificate had become a pre-requisite to qualification in infant welfare. Nevertheless, it would be necessary to extend the course in order to include training in the emotional and social aspects of child health.

Importance was attached to the necessity for giving trainees the correct approach to preventive care and health teaching and a preliminary two weeks' course of lectures for this purpose was recommended. It is proposed that these lectures should be given before the entrance of trainees into the various training schools. Following the four months' residential training as now provided, a further six weeks' training in field work with some additional lectures was recommended. This field work was to be supervised by approved tutors. Under this scheme students need residential accommodation for a period of two months. In this regard the sub-committee suggested that an allowance should be given similar to that provided for scholarship students at the College of Nursing Australia. The Nurses Board approached the Minister of Health for a grant to implement this recommendation but the matter was deferred.

I would stress the vital importance of training sisters to deal with emotional and social problems met with in their work and equipping them to give sound health teaching to mothers. The recognition of the importance of these early years is acknowledged by all psychiatrists.

The Chairman of the Mental Hygiene Authority, Dr. Cunningham Dax, kindly agreed to give some assistance to infant welfare sisters by arranging a post graduate course of lectures in child psychiatry. Lectures are held on Friday evenings each week to enable Sisters in nearer country areas to attend. The course has only just commenced and has been greeted with great enthusiasm. There is an average weekly attendance of more than one hundred sisters. To give some indication of the nature of the help that is needed, the details of the programme are listed.

June 26th—	Introduction	Dr. E. Cunningham Dax
July 3rd—	The Development of the Normal Child	Professor O. A. Oeser
July 10th	Abnormalities of Infantile Behaviour and Their Management, 0–3	Dr. John Williams
July 17th—	Difficulties of the Young Child, 3–6	Dr. R. E. G. MacLean
July 24th—	Backwardness in Childhood. Causes and Management	Dr. A. R. Phillips
July 31st—	The Family and Its Effect on the Child	Dr. Guy Springthorpe
August 7th—	The Deprived Child	Dr. A. Stoller
August 14th—	Signs of Intellectual Subnormality in the Young Child	Mr. K. M. Cathcart
August 21st—	Emotional Disturbances in Childhood	Dr. J. V. Ashburner
August 28th—	Delinquency and Its Contributing Factors	Dr. A. W. Meadows
September 4th—	The Worried Parent	Dr. A. J. M. Sinclair
September 11th—	The Frantic Sister	Dr. E. Cunningham Dax

The sisters are most grateful for the help given to them by Dr. Cunningham Dax and his team of lecturers.

Recognition of the value of implementing sound principles of mental hygiene into health services is shown by the planning by the Institute of Child Health of a Seminar in Mental Health in Childhood to be held at Sydney University from August 10th to 27th. This project is being sponsored by the World Health Organization. The specific subject of the Seminar will be—

" Child Development and Home Environment," and discussions will include the following aspects of this subject:—

(*a*) The characteristics of growth and development of infants and children ;

(*b*) Consideration of the forces in the home and the community responsible for moulding the infant and young child into the cultural patterns of the home and the society in which he lives ;

(*c*) A consideration of some of the behaviour problems of young children—their prevention and ways to handle them ;

(*d*) How a knowledge of the facts developed in discussions might be used in programmes of child health, child welfare and education.

Participants in the Conference will be drawn from countries of South East Asia, the Western Pacific, New Zealand, and Australia. All States will be represented, Victoria's quota including representatives of the Children's Hospital, Mental Hygiene and Maternal and Child Hygiene Branches, and General Health Section of the Department of Health.

Overseas authorities attending are :—

Dr. C. M. Gundry, Director, Mental Hygiene, Vancouver.

Dr. Ronald McKeith, Senior Paediatric Consultant, Guy's Hospital London.

Professor Raymond Firth, Professor of Anthropology, London.

Dr. F. J. Bulsara, Far Eastern Regional Social Welfare Advisor, United Nations Technical Assistance Administration, Bangkok.

During the year a Consultative Council on Pre-School Child Development was set up to advise the Minister in regard to pre-school services. To date four meetings have been held. A report will be submitted to the Honourable the Minister when all matters have been dealt with.

The following are Members of the Council :—

Chairman:

Dr. Guy Springthorpe	Representing the Australian Association of Pre-School Child Development, Victorian Branch.

Members:

Mrs. A. R. Macneil Miss H. M. Paul	Representing the Australian Association of Pre-School Child Development, Victorian Branch.
Dr. Vernon L. Collins Dr. John F. Williams	Representing the Children's Hospital.
Mrs. L. Hume Sherrard	Representing the Head-mistresses Association.
Miss M. Lyttle	Representing the Incorporated Association of Registered Teachers of Victoria.

Observers :

Mr. J. G. Cannon, B.A., M.Ed.	Representing the Department of Education.
Dr. W. B. Meredith Miss E. M. Stubbs	Representing the Maternal and Child Hygiene Branch of the Department of Health.
Dr. V. P. Johnson	Representing the Mental Hygiene Branch of the Department of Health.
Mr. A. D. Douds ..	Acting as Secretary to the Consultative Council.

The Government has announced that the Coronation Fund for mothers will be allocated to the Queen Victoria Hospital Building Appeal. The Committee has planned the erection of a new hospital block which will include a nursery for premature babies. As prematurity is still one of the major problems in the infant welfare field, this project, which will provide additional accommodation for these infants on modern lines, is welcomed. Such a building will not only give beds but will provide greater opportunities for training the medical and nursing personnel so greatly needed for this work. Dr. Kate Campbell, who is so well known for her teaching on the care of the newborn will, no doubt, welcome these added facilities for their care and extend their use to forward the programme of preventive medicine in this State.

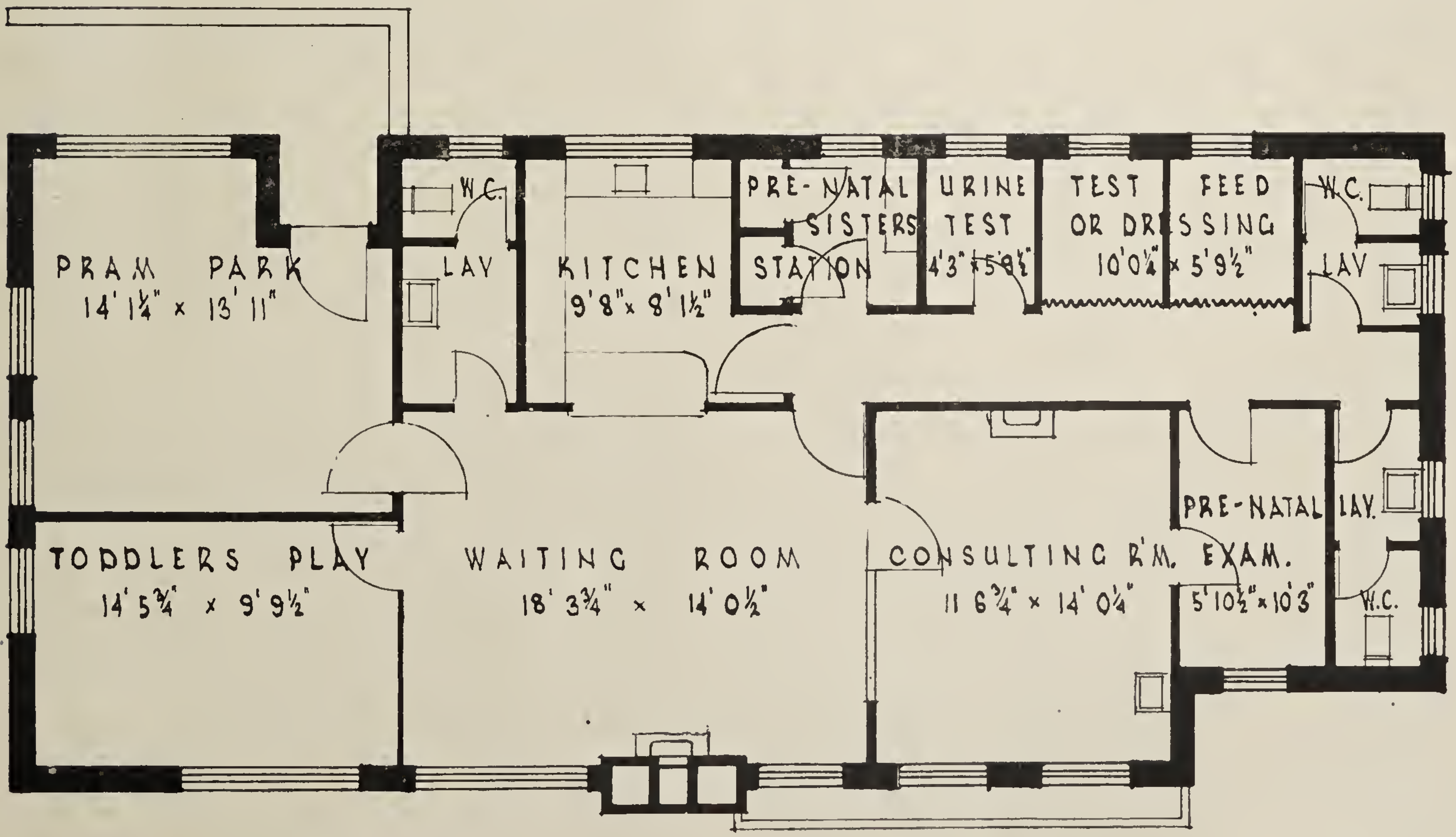
BUILDINGS.

During the year, 38 capital grants for the erection of buildings were approved. Many more were deferred owing to lack of finance. At the beginning of the year many new buildings were opened, capital grants having been approved for these prior to the adoption of the deferment policy. Details of building grants are given below.

TABLE 1.

—	1949.	1950.	1951.	1952.	Total.
Metropolitan.					
Infant Welfare Centres ..	11	1	9	6	27
Combined Infant Welfare and Pre-school Centres	2	..	1	..	3
Pre-school Centres ..	25	14	32	8	79
Creches	2	2	1	1	6
Total ..	40	17	43	15	115
Country.					
Infant Welfare Centres ..	26	9	13	13	61
Combined Infant Welfare and Pre-school Centres	..	1	..	1	2
Pre-school Centres ..	10	4	6	9	29
Creches	1	..	..	..	1
Total ..	37	14	19	23	93

Plan of Infant Welfare Centre, Oriel Road, Bellfield.



[Photograph by Milton Barrett.

Infant Welfare Centre erected by Heidelberg City Council at Oriel-road, Bellfield. This makes special provision for the conduct of an Ante-Natal Clinic.

The three sections of the Division are now dealt with in detail.

ANTE-NATAL.

TABLE 2.—ATTENDANCES OF EXPECTANT MOTHERS FOR YEAR ENDED 31ST DECEMBER, 1952.

(*a*) *Metropolitan-Municipal Pre-Natal Medical Supervision Centres.*

Name of Centre.	Number of Patients.		Number of Visits to Centre.	
	1951.	1952.	1951.	1952.
Coburg	469	640	2,356	3,850
Collingwood ..	200	399	647	1,130
Fairfield	178	206	832	1,155
Fitzroy	254	266	1,189	1,509
Hawthorn ..	431	606	1,845	3,491
Moonee Ponds ..	13	677	13	2,060
Northcote ..	328	410	1,439	2,052
Port Melbourne ..	129	154	727	917
Prahran	499	764	2,102	3,804
Preston	529	739	1,538	2,493
Richmond.. ..	338	447	1,335	2,103
Sandringham ..	247	328	1,055	1,954
South Melbourne ..	297	328	1,279	1,514
Sunshine	261	454	1,389	2,491
Yallourn	455	512	2,799	2,717
	4,628	6,930	20,545	33,240

(*b*) *Attendances of Expectant Mothers for Pre-Natal Hygiene at Victorian Infant Welfare Centres.*

—	1951.	1952.
Number of individual cases ..	6,017	5,855
Number of new cases	4,469	4,733
Total number of consultations ..	13,073	13,549

Increasing attendances at centres and the opening of new centres have necessitated the appointment of additional staff, both nursing and medical. Dr. Alice Correll has the responsibility for this section and she is assisted by a half-time Medical Officer, Dr. Effie Ross, and five medical officers who work on a sessional basis, no sessional officer undertaking more than two sessions each week. Every effort is made to ensure that medical officers in this section spend some time each week in an ante natal clinic at one or other of the two metropolitan midwifery hospitals. The need for the closest liaison between the hospitals and ante natal clinics is recognized. The teaching given to mothers at all centres in regard to correct diet and wise purchasing of food has continued and the importance of a regular weight check is emphasized. Any defaulters failing to attend on their appointed days are written to, and if no response is received the hospital is notified.

Three new centres have been opened by municipalities during the year—the Melbourne City Council centre at Newry-street, Carlton ; the North Essendon centre, and Belgrave centre (Shire of Ferntree Gully). The Caulfield Council is also giving consideration to the opening of an ante natal centre at Murrumbeena. Information in regard to the service has also been supplied to Chelsea, Mordialloc, and Moorabbin Councils.

Advice on diet, hygiene and mothercraft is available for expectant mothers at all infant welfare centres throughout the State. It is encouraging that many mothers are availing themselves of this service which is complementary to that given by doctors.

There is an increasing demand for supplies of the pre-natal booklet. This publication has been completely revised and the new edition is anxiously awaited from the printer. Requests for more than 10,000 copies have already been received.

The correspondence scheme continues to provide a monthly service for expectant mothers in remote country areas.

INFANT WELFARE.

While our infantile mortality rate of 22·29 has not reached the record low rate of 20·09 achieved in 1950, it is a shade lower than the previous year.

TABLE 3.—INFANT MORTALITY IN VICTORIA. 1910–1952.

Period.	Rate per 1,000 Births.		
	Greater Melbourne.	Remainder of State.	Victoria.*
1910–14	84·2	64·9	73·8
1915–19	76·2	55·4	66·1
1920–24	71·6	58·6	65·3
1925	60·2	53·7	57·0
1926	61·6	49·5	55·6
1927	62·5	49·4	56·1
1928	56·8	54·5	55·6
1929	50·5	43·9	47·2
1930	50·7	42·3	46·5
1931	48·0	41·4	44·5
1932	47·7	38·7	43·0
1933	40·9	40·0	40·4
1934	48·2	41·4	44·6
1935	43·0	39·5	41·2
1936	44·1	40·7	42·3
1937	37·1	36·3	36·7
1938	34·1	34·3	34·2
1939	32·3	38·9	35·6
1940	39·7	39·2	39·5
1941	34·6	38·1	36·2
1942	43·8	38·9	41·6
1943	34·1	38·2	35·8
1944	31·0	33·3	32·0
1945	26·87	29·61	28·03
1946	27·04	27·32	27·16
1947	26·82	25·57	26·28
1948	23·77	24·12	23·93
1949	20·27	23·83	21·89
1950	19·37	20·81	20·09
1951	20·81	24·47	22·61
1952	21·91	22·7	22·29

* See Diagram I.

1900-1952

VICTORIA INFANT MORTALITY RATE

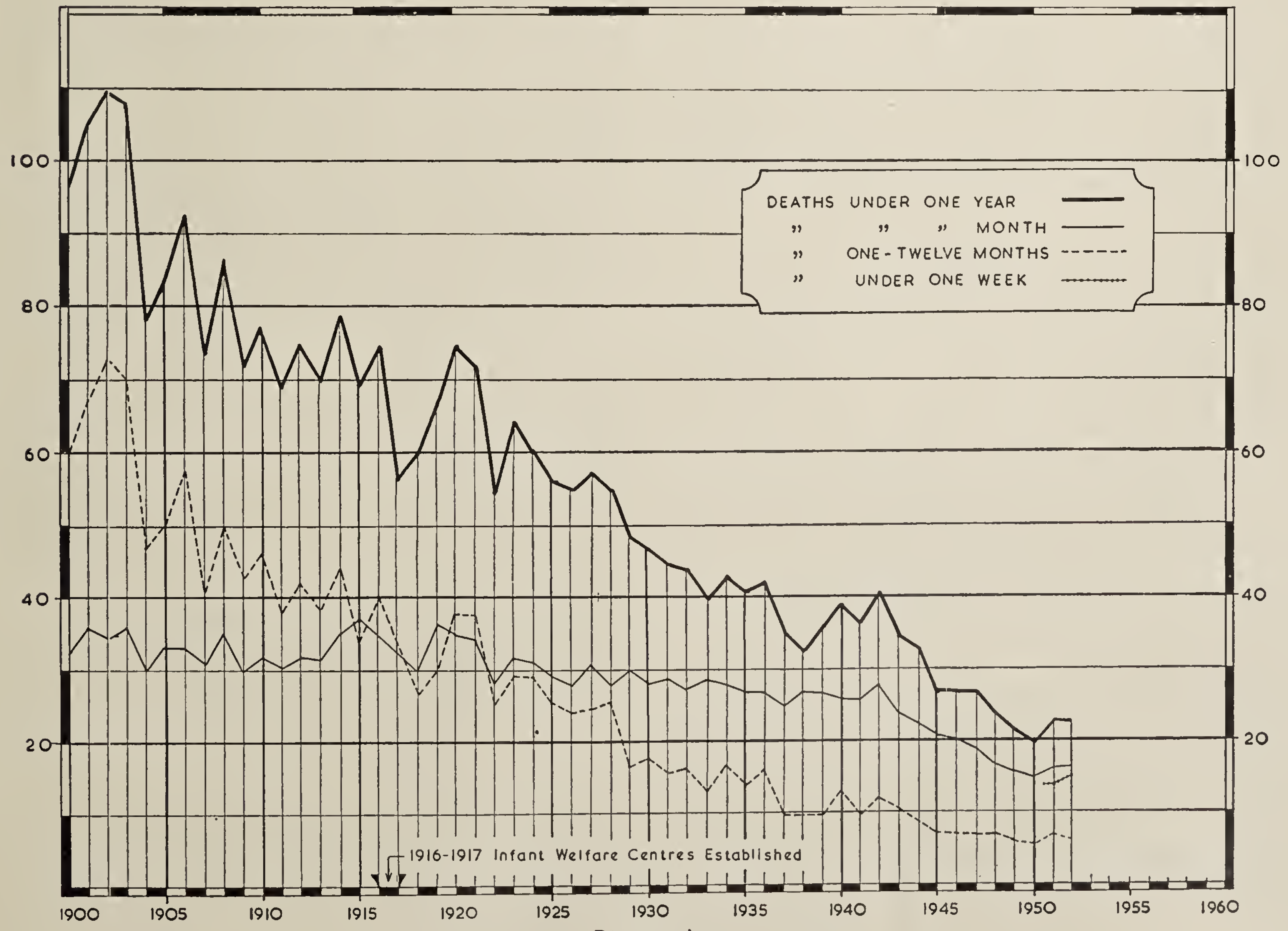


Diagram I.

Table 4.—Infant Mortality, 1952.

Cause of Death.	Number of Deaths.			Rate per 1,000 Births.		
	Under One Month.	One Month and Under 12 Months.	Under One Year.	Under One Month.	One Month and Under 12 Months.	Under One Year.
Infective and parasitic diseases	3	32	35	0·05	0·60	0·65
Pneumonia, broncho-pneumonia, and bronchitis	..	64	64	..	1·19	1·19
Gastro-enteritis and colitis except diarrhoea of the newborn	..	11	11	..	0·20	0·20
Congenital malformations	138	92	230	2·57	1·71	4·28
Certain diseases of early infancy—						
Birth injuries—						
(*a*) Without mention of immaturity	94	5	99	1·75	0·09	1·84
(*b*) With immaturity	49	..	49	0·91	..	0·91
Post natal asphyxia and atelectasis—						
(*a*) Without mention of immaturity	66	2	68	1·23	0·04	1·27
(*b*) With immaturity	143	..	143	2·66	..	2·66
Infections of the newborn—						
(*a*) Without mention of immaturity	32	..	32	0·60	..	0·60
(*b*) With immaturity	20	..	20	0·37	..	0·37
Other diseases peculiar to early infancy—						
(*a*) Without mention of immaturity	48	3	51	0·89	0·05	0·94
(*b*) With immaturity	47	2	49	0·87	0·04	0·91
Immaturity unqualified	218	2	220	4·06	0·04	4·10
All other diseases	15	88	103	0·28	1·64	1·92
Accidents, poisonings, and violence	8	16	24	0·15	0·30	0·45
Total	881	317	1,198	16·39	5·90	22·29

Note.—Infections of the newborn include pneumonia of newborn, diarrhoea of newborn, ophthalmia neonatorum, pemphigus neonatorum, umbilical sepsis, and other sepsis of the newborn.

Infant Death Rates, 1952.

Under 1 week	14·20
1 week and under 1 month	2·19
1 month and under 12 months	5·90
Under 1 year	22·29

Table 5.—Development of Infant Welfare Services in Victoria.

(Comparative Figures.)

—	1917–18.	1926–27.	1951.	1952.
Number of birth notifications received during year	..	..	49,205	52,541
Number of babies responding as a result of such notifications	..	..	32,484	35,129
Number of new babies on roll	..	..	52,264	55,839
Number of individual babies at centres—				
(*a*) Under twelve months	..	..	54,324*	57,833*
(*b*) Over twelve months (including those over two years)	..	..	57,682*	58,564*
Total individual babies and children at centres	913	25,735	104,893†	110,766†
Total number of attendances of babies and children at centres	4,116	192,142	999,336	1,052,117
Nurses' visits to homes	1,407	62,535	99,553	106,327
Number of babies referred to doctor	..	..	13,707	13,728
Number of babies referred to hospital	..	..	1,849	1,782
Number of mothers referred to doctor	..	..	1,953	2,188
Number of mothers referred to hospital	..	..	376	469
Telephone consultations	..	..	43,083	45,623

* Including transfers. † Excluding transfers.

TABLE 6.—NON-RESPONSES TO INVITATIONS TO ATTEND CENTRE. [Following Receipt of Birth Certificate.]

Analysis Compiled by Infant Welfare Sister.

Cause of Non-response—	%
Visiting other centres	19·2
Babies referred to correspondence scheme	6·1
Moved from district	7·9
Resident beyond municipality	3·0
Babies too young to attend	12·8
Address unknown	2·4
Disinterested	18·9
Deaths, including stillbirths	8·5
Other causes	21·2

Insufficient finance is still mitigating against a high standard of service as the increase in maintenance subsidy to municipalities did not meet 50 per cent. of the cost. While recognizing the value of the service, Councils are reluctant to appoint additional staff to meet growing needs. Some municipalities are faced with a rapidly expanding population. This applies particularly to Corio, Narracan, and Morwell Shires where large housing schemes are being developed for personnel required for local industries. Expansion of population in these areas means the establishment of sub-centres as mothers cannot be expected to push prams two or three miles over unmade roads. The deferment of capital grants creates an added burden for such Councils.

The total number of infant welfare centres in operation at 31st December, 1952, is made up as follows :—

Metropolitan	134
Country	321
Mobile	24

During the year, twenty new infant welfare centres were opened. Sixteen were opened by Councils with already established centres. Four were opened in migrant camps and hostels.

The new centres opened were at Alvie, Cressy, Pirron Yallock, Swan Marsh, Templestowe, The Sisters, Newborough, Puckapunyal, Newborough East, Moe West, Walwa (transferred from route). Powlett-street Reserve, Oakleigh South, Armadale, Friend-street, Box Hill, and Florence-street, Box Hill, and in the following holding camps and hostels, Benalla, Rushworth, Williamstown, and Nunawading.

During 1952, eight centres were closed—some through change of policy as in the case of migrant centres at Rushworth, Yallourn, and Mildura, and the emergency housing area at Watsonia. The other four closures were Baringhup Dam, Moe North, Ellerslie and the centre at the Foundling Hospital, East Melbourne.

Wannon Shire which formerly had a part-time sister and also received a service from the Kowree mobile van has appointed a full time sister. This Shire also plans to erect a new centre with residential accommodation and to establish its own mobile service.

Oakleigh Council appointed an additional full-time sister. Winchelsea and Bellarine Shires which have received a part-time service from neighbouring municipalities are considering the appointment of full-time sisters.

New infant welfare centre buildings have been erected at—

Ballarat	Midlands Centre
Berwick	Garfield Gembrook Berwick
Box Hill	Florence-road Box Hill North Box Hill South
Caulfield	Murrumbeena
Cohuna	Cohuna
Doncaster	Doncaster East
Eltham	Eltham
Ferntree Gully	Bayswater Boronia
Flinders	Dromana
Frankston	Hastings
Healesville	Marysville
Kerang	Kerang
Lillydale	Seville
Maffra	Heyfield Maffra
Mildura	Cardross
Morrabbin	Moorabbin
Mordialloc	Mordialloc
Newtown and Chilwell	Newtown
Oakleigh	Oakleigh South
Prahran	Brookville Garden
Richmond	Burnley
Sandringham	Grange-road
Tambo	Lakes Entrance
Tungamah	St. James
Wangaratta	Wangaratta
Waranga	Stanhope
Woorayl	Meeniyan
Heidelberg	Alphington Bellfield East Ivanhoe

Of the 200 municipalities in Victoria there are only eight that do not support or contribute to any infant welfare centre. Mothers in these shires receive advice by correspondence. As the number of static centres increases, the number of enrolments in our correspondence scheme shows a corresponding decrease. The scheme has however been of inestimable benefit to country mothers and many of our static centres have resulted from interest aroused in infant welfare through the correspondence letters.

TABLE 7.—INFANT WELFARE CORRESPONDENCE SCHEME.

Invitations Sent—		
(*a*) First	2,129	
(*b*) Second	984	
		3,113
Responses—		
(*a*) First Invitations	863	
(*b*) Second Invitations	272	
		1,135
Non-responses (Cards Returned)—		
(*a*) Attending Centre		182
(*b*) Babies Died		5
(*c*) Disinterested		21
Expectant Mothers Enrolled		99
Ante-Natal Letters Sent		489
Personal Letters Answered		1,959
Progress Letters Sent		23,872
Number of Children Enrolled Since Inauguration		20,625
Number of Letters Posted for Year		29,534

The mobile circuits continue to provide a much valued service for outback mothers. All vans have now been provided with dual wheels to make for safer and more satisfactory running. The Omeo-Lakes Entrance circuit shows heavy attendances and more time could be spent at Lakes Entrance if this was available. Kowree circuit no longer provides a service for Balmoral which is in the Wannon Shire. The Rocklands Dam being finished, visits here are no longer necessary. It is hoped to interest Arapiles Shire in the spare day fortnightly which is available from this circuit. Kiewa and Bright Shires have under consideration the provision of centre buildings. Corryong is raising funds for a similar project.

Increased subsidies were made available to the Shires over which the Victorian Baby Health Centres Association caravan operates until the end of the financial year.

Services for non ratepayers are provided directly by the Department or by a municipal officer, the municipality being reimbursed for the service. An infant welfare service is given to:—

1. Hostels—
   Brooklyn
   Fishermen's Bend
   Holmsglen
   Royal Park
   Broadmeadows
   Yallourn
   Ballarat.

Holding Camps—
   Benalla
   Rushworth (now closed)
   Somers
   Bonegilla

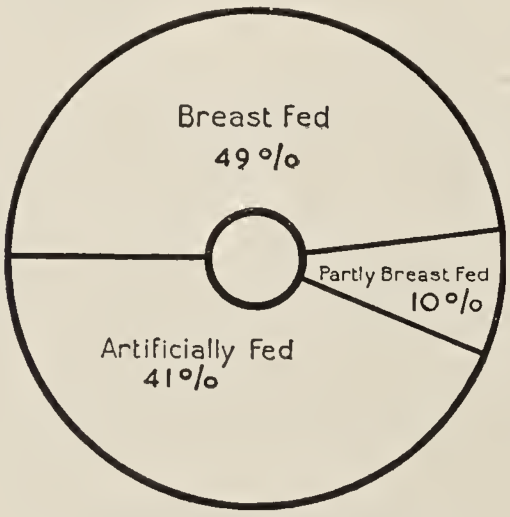
2. Emergency Housing Area—
   Camp Pell.
3. Families of Army Personnel—
   1. Puckapunyal
   2. Bandiana.

VEHICLE SUBSIDIES.

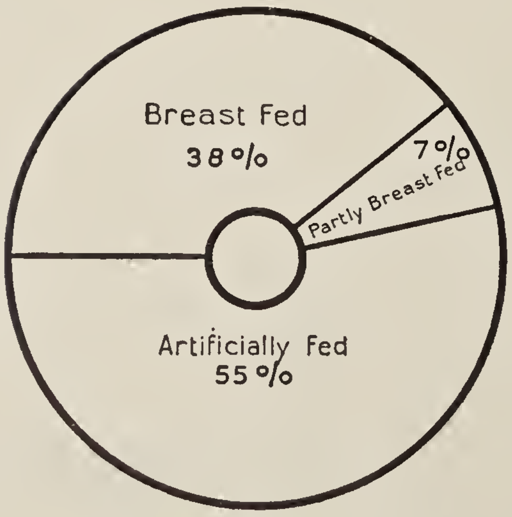
During the year, three additional vehicle subsidies were approved making a total of 36 since the inception of this subsidy in 1949.

BREAST FEEDING ANALYSIS.

During 1952 the type of feeding of 11,139 infants attending 303 infant welfare centres was noted by infant welfare inspectors. These feedings were recorded at three months of age and were compared with the feedings of infants at six months of age attending centres.



AT 3 MONTHS OF AGE



AT 6 MONTHS OF AGE

Analysis was also made of the ages at which 4,566 infants being artificially fed at three months of age were weaned.

0–2 weeks, 1,801 infants weaned or 39 per cent. (approximately).

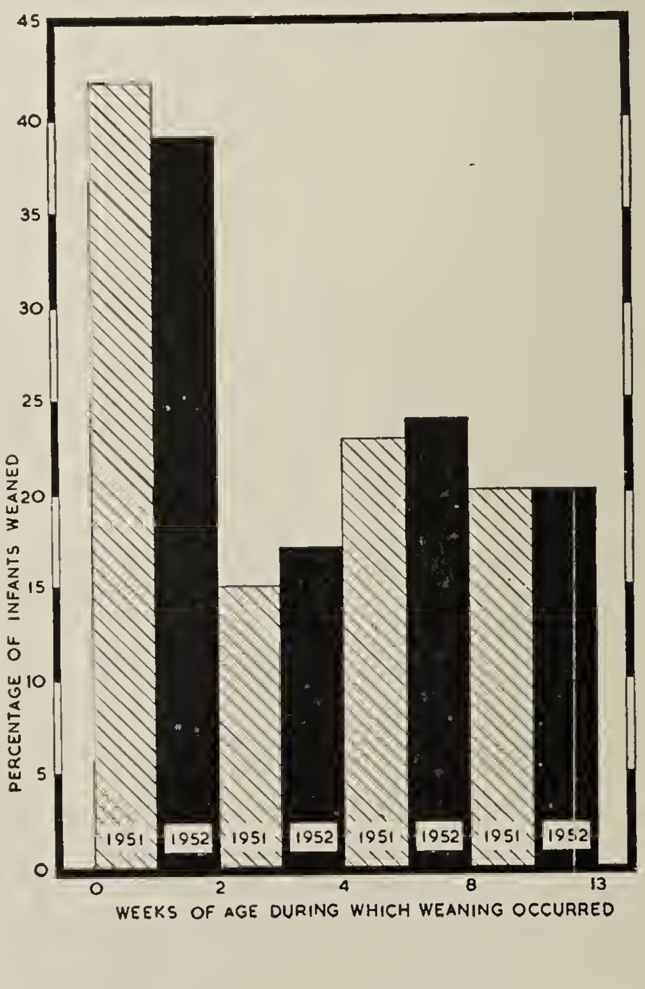
2–4 weeks, 765 infants weaned or 17 per cent. (approximately).

4–8 weeks, 1,082 infants weaned or 24 per cent. (approximately).

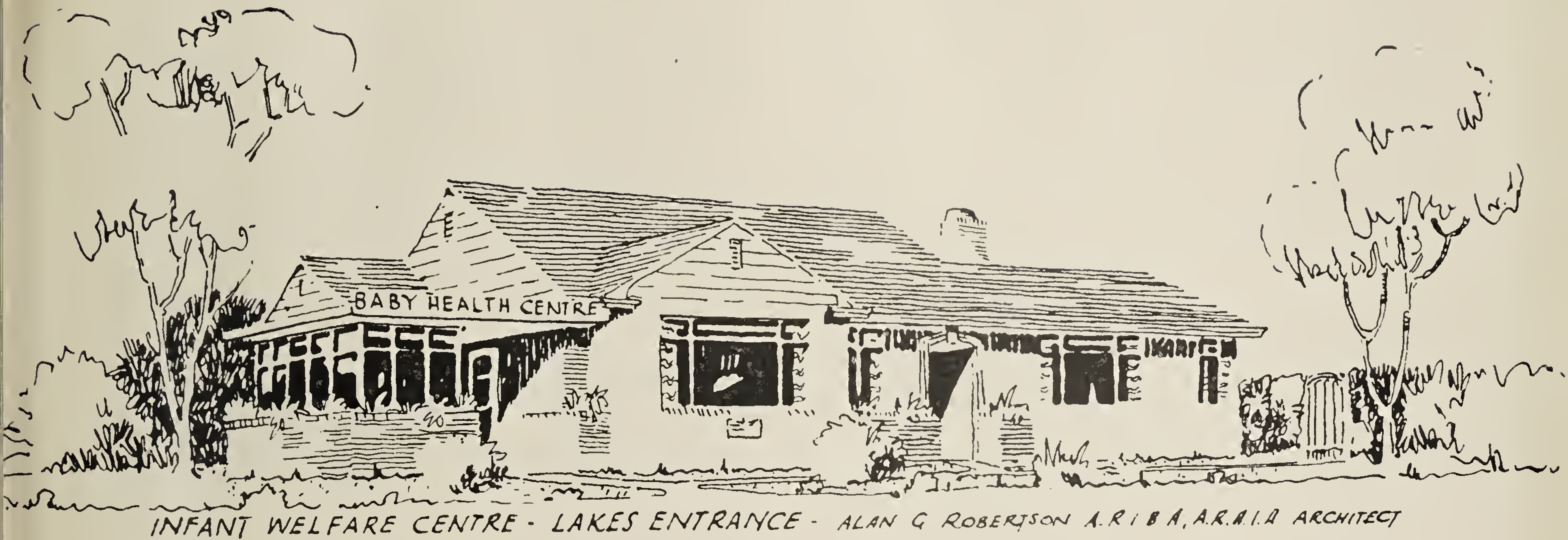
8–13 weeks, 918 infants weaned or 20 per cent. (approximately).

This information is shown diagrammatically below.

Age of Weaning of 4,566 Infants being Artificially Fed at Three Months of Age Compared with 1951 Figures.

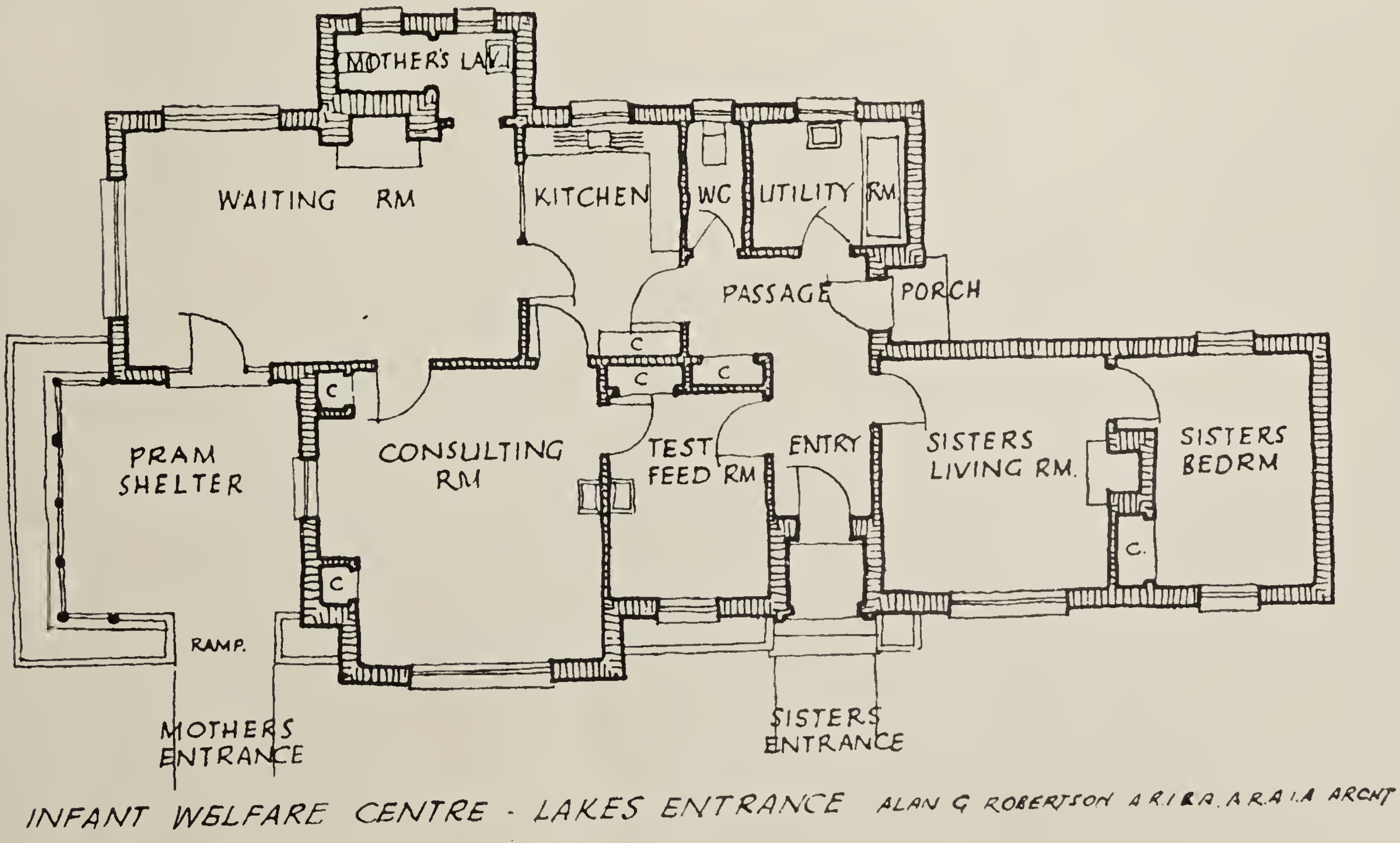


INFANT WELFARE CENTRE WITH RESIDENTIAL ACCOMMODATION.


BABY HEALTH CENTRE
INFANT WELFARE CENTRE - LAKES ENTRANCE - ALAN G ROBERTSON A.R.I.B.A, A.R.A.I.A ARCHITECT

Infant Welfare Centre, Lakes Entrance.

Details of the Layout are shown below.



MAINTENANCE OF SERVICE.

In spite of expansion of the service, staff for relieving as well as for permanent positions has always been available. The provision of infant welfare scholarships by the Government with the proviso that the holder shall work for one year as directed on completion of training has ensured the staffing of country centres. Eight such scholarships were awarded during the year. The Department's bureau for relieving sisters provides a service which both municipalities and sisters appreciate. Bookings for the year totalled 171. Many country municipalities are interested in providing residential accommodation for the sister. This makes for a more stable service. The number of sisters employed in infant welfare centres (inclusive of Departmental staff on Mobile Circuits and in Migrant Centres) = 220.

INFANT WELFARE TRAINING SCHOOLS.

The number of infant welfare students trained during the last three years is as follows :—

Table 8.

Training School.	Number of Trainees.		
	1950.	1951.	1952.
Presbyterian Babies' Home ..	14	15	13
Tandarra Foundling Hospital ..	16	16	10
Tweddle Baby Hospital ..	16	17	14
Victorian Baby Health Centres Association Training School	29	26	30

Of the 67 nurses who completed their infant welfare training in 1952, 27 are engaged in infant welfare work.

—	Infant Welfare Centre.	Training School.	Hospital.
Presbyterian Babies' Home (13)	3	2	1
" Tandarra " .. .. (10)	1	2	2
Tweddle Baby Hospital .. (14)	5	..	1
V.B.H.C.A. (" Queen Elizabeth ") .. .. (30)	13	1	3
Total	22	5	7

The total number of infant welfare sisters registered with the Nurses' Board, Victoria, at the 31st December, 1952, was 1,577 ; 93 registrations were effected during the year. Six sisters obtained pre-school registration making the total number registered for this training with the Nurses' Board, Victoria, at 31st December, 1952, 49.

Medical students attended three of the infant welfare training schools during the year for experience in infant feeding.

Presbyterian Babies' Home, Camberwell ..	54
Foundling Hospital, East Melbourne	52
Queen Elizabeth Maternal and Child Health Centre	53

On the first Saturday in December the Prime Minister opened the new building which has been erected at the Presbyterian Babies' Home. This provides emergency accommodation for toddlers whose mothers are temporarily incapacitated and a section for nursing mothers. Both these services meet a need.

The infant welfare centre at the Berry-street Foundling Hospital was closed ; the new centre opened by the City Council in the Powlett-street reserve providing for mothers in that area.

Infant welfare students from the Foundling Home and the Presbyterian Babies' Home now gain centre experience during training at infant welfare centres approved by the Nurses' Board. A tutor sister from the Department supervises this field training which enables students to gain centre experience in both industrial and residential areas.

The Department acknowledges with thanks the help given by training schools in arranging refresher courses for those trained outside the State or those who since training have been out of touch with their work.

MOTHERCRAFT TRAINING.

Details of training at the nine approved mothercraft training schools for the last two years are as follows :—

Table 9.

Training School.	Number of Trainees.	
	1951.	1952.
Bethany Babies' Home, Geelong ..	10	11
Foundling Hospital, Berry-street, East Melbourne	19	13
St. Joseph's Foundling Hospital, Broadmeadows	28	32
Methodist Babies' Home, Copelan-street, South Yarra	19	14
Presbyterian Babies' Home, 19 Canterbury-road, Camberwell	20	19
St. Gabriel's Church of England Babies' Home, Balwyn	14	14
Victorian Baby Health Centres' Association Training School, Carlton . ..	..	..
Tweddle Baby Hospital, Barkly-street, Footscray	14	12
" Mountfield," Mont Albert-road, Canterbury	15	9
Unattached	..	1

The number of successful candidates since the inauguration of State examination in 1930 is now 1,794. The number of mothercraft trainees who passed the State examination in 1952 totalled 125, a slight decrease from the figures for the previous year. The Queen Elizabeth centre has not been functioning sufficiently long to present candidates for examination. All training schools have waiting lists and the course is a very popular one.

A pre-school officer from the Department gave lectures to trainees at all mothercraft training schools on toddler problems and management. Each trainee is required to make a project book and a plaything from waste material during her training, and visits three kindergartens. A question on this aspect of their work is now included in the State examination paper.

Further post-graduate experience with children in the pre-school age group may be obtained by taking the pre-school course of three months' duration at the Kindergarten Training College. Eight scholarships were given by the Government for this training for 1953. In 1952 two nurses obtained the pre-school mothercraft certificate, making a total of 101 gaining this qualification since the course was inaugurated in 1942.

The bureau conducted by the Department for the registration of mothercraft nurses continues to progress and the first full register for mothercraft nurses was published in 1952.

Number of mothercraft nurses who have satisfactorily passed since the inauguration of the State examination in 1930 . .	1,794
Number of mothercraft nurses who have registered for 1952	159
Total number of mothercraft nurses who have registered since registration came into operation (February, 1951)	521
Names of mothercraft nurses removed from register for 1952 for non payment of annual fee	11

The Mothercraft Nurses' Bureau continues to provide a very valuable service as a liaison office between mothers needing mothercraft help and nurses seeking positions. The bureau has established closer relations with other States and New Zealand and is able to provide help for nurses coming to this State from other recognized training schools.

Number of cases booked for year 1952 . .	718
Number of cases arranged during year 1952	358
Number of cases booked since Bureau was opened	2,237

MOTHERCRAFT TEACHING IN SCHOOLS.

This service is meeting with much encouragement and is rapidly expanding. The girls display much enthusiasm for the subject and the project books which they prepare show a high standard of work. Head teachers are most co-operative and very ready to include mothercraft in their curriculum.

During 1952, three State high schools, one girls' school, five central schools, one post primary school, one State school, and one college were added to the itinerary of the Departmental sister. Voluntary organizations receive a subsidy from the Government

[Photograph by Department of the Interior.

Sister Holmes, Departmental Mothercraft Lecturer, giving a demonstration in Rathdown-street State School, Carlton.

for this work. The Victorian Baby Health Centres Association employ one full-time lecturing sister who visited 44 schools. The Truby King League supplied a part-time service for nine schools.

Infant welfare sisters in country areas are also providing a service. These sisters gave 91 lectures in eleven country schools in the Colac, Casterton, Daylesford, Echuca, Maryborough, and Tatura areas.

One Departmental sister is engaged full-time on this work either lecturing or assisting centre sisters to arrange courses of lectures.

DETAILS OF MOTHERCRAFT LECTURES IN SCHOOLS FOR 1952.

Departmental Officers.

Number of Schools	31
Number of Classes	51
Number of Lectures	420
Number of Girls	1,687

Municipal Officers.

Number of Schools	11
Number of Classes	12
Number of Lectures	91
Number of Girls	320

Victorian Baby Health Centres Association.

Number of Schools	44
Number of Classes	65
Number of Lectures	641
Number of Girls	2,431

Truby King League.

Number of Schools	9
Number of Classes	16
Number of Lectures	140
Number of Girls	489

The Country Areas serviced were as follows :—

Schools.	Lecturer.	Number of Classes.	Number of Lectures.	Number of Girls.
Colac— St. Joseph's College St. Mary's School	Sister F. Davidson	2	12	22
Colac Town— High School ..	Sister J. B. Baker	1	8	62
Casterton— Higher Elementary School Convent of Mercy	Sister C. W. Freeman	2	14	30
Daylesford— Holy Cross Convent Technical High School	Sister M. Beaumont	2	16	64
Echuca— High School ..	Sister A. McCartney	2	12	47
Maryborough— High School Technical School	Sister E. Crothers	2	22	73
Tatura— State School ..	Sister R. Crawford	1	7	22
(11 schools) ..	..	12	91	320

EMERGENCY HOUSEKEEPER SERVICE.

Since Miss Duncan's departure for England in 1951 the supervision of the service has been taken over by Mrs. McGain, one of the infant welfare inspectors. This work has been in addition to her infant welfare duties.

Municipalities which have established services during the year are :—

City of—	Shire of—
Box Hill	Barrabool
Heidelberg	Mornington
Brighton	Creswick
	Morwell.

SUMMARY OF COUNCILS WHO HAVE ESTABLISHED THE EMERGENCY HOUSEKEEPER SERVICE AT 31ST DECEMBER, 1952.

Cities.	Organizer.	Number of Housekeepers Employed.
Ararat ..	..	1 permanent
Ballarat ..	..	1 permanent
Box Hill ..	1	8 permanent and some part-time helpers
Brighton ..	..	1 permanent
Brunswick ..	1	2 permanent and some part-time helpers
Camberwell ..	1	5 permanent and some part-time helpers
Caulfield ..	1	3 permanent and 7 part-time helpers
Chelsea ..	1	Advertising
Hamilton ..	..	1 permanent
Hawthorn ..	1	10 permanent and 4 part-time helpers when necessary
Heidelberg ..	1	2 permanent and some part-time helpers when necessary
Horsham ..	..	1 permanent
Kew	1	11 full-time, 5 part-time helpers
Mildura ..	..	1 full-time
Moorabbin ..	..	Advertising
Newtown and Chilwell	..	1 full-time and 2 part-time helpers
Prahran ..	1	7 permanent and 1 part-time helper
Richmond ..	1	2 permanent
Ringwood ..	..	1 permanent
Sandringham ..	..	Advertising
St. Kilda ..	..	1 permanent
Shepparton ..	..	1 permanent
South Melbourne	Social Worker as Organizer	3 permanent and part-time helpers if required The Home Help Auxiliary also provide a separate service on a part-time basis. The cost of same is met from funds of the South Melbourne Community Chest
Sunshine ..	..	Advertising
Towns.		
Portland ..	..	Not functioning at present
Yallourn ..	..	3 permanent day workers
Borough.		
Ringwood ..	..	1 permanent
Shires.		
Ararat ..	..	Sharing with Ararat City
Barrabool ..	..	Advertising
Creswick ..	..	1 part-time
Frankston ..	..	Advertising
Gisborne ..	..	2 part-time helpers
Mornington ..	..	1 permanent and 1 part-time helper
Morwell ..	..	1 permanent
South Barwon	..	1 permanent and 1 part-time
Warragul ..	..	No housekeepers employed at present

Meetings in connection with the service have been attended as follows :—

Municipal Council Meetings—

Birchip, Castlemaine, Collingwood, Creswick, Doncaster, Eltham, Ferntree Gully, Mildura, and Port Fairy.

Public Meetings—

Barrabool, Birchip, Birregurra, Castlemaine, Creswick, Frankston, Hawthorn, Mildura, Port Fairy, St. Arnaud, Springvale, Wangaratta, and Warrnambool.

A meeting of representatives from municipalities operating emergency housekeeper services was held at the Hawthorn Town Hall on Wednesday, 9th July, three representatives from the Department being present at the meeting. Discussions took place on the way the service operated in the various municipalities. Approximately £8 per week was paid for the services of a housekeeper. Where hostel accommodation was provided a deduction of approximately £1 per week was made. South Melbourne pay housekeepers an extra living allowance as owing to poor home conditions food is frequently not available.

[Photograph by K. Griffiths.

Combined Infant Welfare and Pre-School Centre together with Ambulance and Comfort Station, erected by Maffra Shire Council.

Superannuation and the possibility of an award came under discussion. At present Kew and South Melbourne are the only Municipalities paying superannuation. It was considered that the conference had been helpful but that further discussions should be left until a later date as most Councils had only had services operating for a short period. Kew, Hawthorn, and Prahran are the only Councils providing hostel accommodation.

PRE-SCHOOL.

Fourteen new kindergartens were established in 1952 bringing the total to 166. There are now 58 play centres, 14 new ones being opened during the year.

The number of kindergartens subsidised at 31st December, 1952, were as follow :—

Free Kindergarten Union of Victoria	47
Church of England Kindergarten Council . .	20
Presbyterian Kindergarten Council	19
Catholic Education Office	16
Camp Pell State Emergency Housing Centre (Departmental activity)	1
Lady Gowrie Centre	1
Other kindergartens not affiliated with voluntary organization	62
Total	166

At the end of 1952 there were 8,300 children in kindergartens, 1,771 in play centres, and 478 in creches.

Of these 134 were in the metropolitan area and 32 in country towns. Eleven were established by municipal councils. Twenty-eight of the 58 play centres function in the metropolitan area and 30 in the country.

Maintenance subsidies were increased in 1952–53 Budget as follows :—

Kindergartens : £13 10s. per child per annum ;
Play Centres : £30 per session with a maximum of £300 per annum.

During 1952, fourteen new kindergarten buildings were erected and more were completed before the beginning of the school year in 1953.

The new buildings in 1952 and 1953 were as follows :—

Box Hill North	Middleborough-road Baptist Kindergarten
Box Hill	Koornong Heights Kindergarten
Box Hill	Florence-road
Box Hill South	Thomas-street
Carrum	Station-street, Carrum
Edithvale	Edithvale Kindergarten
Ivanhoe	Bellfield Methodist Kindergarten
Moorabbin	McKinnon Kindergarten
Blackburn	Pope-road Kindergarten
Northcote	Batman Park Kindergarten
Keon Park	Baptist Kindergarten
Thornbury	Opportunity Club Kindergarten
Ballarat	Iris Ramsay Kindergarten
Croydon	Croydon Nursery School
Boronia	Ringwood-road, Boronia
Heathmont	Kindergarten, Viviana-crescent
Ringwood	Heatherdale-road Kindergarten
Ascot Vale	Progress Kindergarten, Brown's avenue
Ascot Vale	Ascot Vale East, West-street
Pascoe Vale South	Coonan's Hill
Aspendale	Station-street, Aspendale
Box Hill	St. Peter's, Church of England
Clifton Hill	St. Andrew's, Church of England
Coburg	Church of Christ
Rosanna	Rosanna Methodist Kindergarten
Rosanna	St. Andrew's, Church of England
Malvern	Malvern Memorial Homes' Reserve
East Preston	East Preston Methodist Kindergarten
Beaumaris	Olive Phillips Kindergarten
Ringwood	Ringwood East Baptist Kindergarten
Oakleigh	Oakleigh Baptist Kindergarten
Hampton	Helen Paul Kindergarten
Burwood	Methodist Peace Memorial Home

In many of the country and city areas combined units providing both infant welfare and pre-school facilities are being built. This linking of the two services into a continuous whole is advantageous both to the parents and the children. It means that the combined knowledge and experience of kindergarten teachers and infant welfare sisters is being used to the best advantage. There is a gradual transition for the child from one service to the other and the parent is able to obtain help and advice for her children from infancy through the pre-school years.

Such centres have been established at—

Berwick
Dandenong
Springvale
Fawkner Park
Box Hill, Florence-road
Box Hill, Koornong Heights
Box Hill South
Fishermen's Bend
Traralgon
Maffra
Wangaratta
Kingsville
Camp Pell
Brookville Gardens

A number of kindergartens now have an afternoon toddlers' group. The young child visits the kindergarten with his mother and spends the afternoon happily playing with the equipment while the mother is able both to help supervise the child's play and to talk with the teacher about his growth and development. In this way she can be given information regarding the child's future growth which will prepare her for the stages which are to come and so help her deal with them in a positive, confident way.

The demand for pre-school services is steadily increasing and groups of parents and citizens in various parts of the State are requesting information regarding the establishment of a pre-school centre. As the number of centres in the more distant areas increase, the problem of supervision arises. In some areas the population does not warrant a full-time centre as the pre-school children live in scattered areas and would be able to come together in a group perhaps only twice or three times a week. The appointment of a regional officer to provide a service for both the children and the parents would seem to be one solution to this difficulty. Such an officer could travel from one centre to another and link together the work of the area. The services of this officer could be shared perhaps by neighbouring municipalities. In most country centres one afternoon session is set aside for the country children who live in the outlying farms and come into the town with their parents on shopping days. This afternoon at the kindergarten gives the children a very valuable contact with other children their same age and also leaves the parents free to conduct their business. This type of service is greatly needed and could with advantage be expanded.

The interest of municipal councils in pre-school work is being shown, both by the financial support given in varying degrees to existing kindergartens, and the appointment of pre-school child development officers. There are now five pre-school child development officers, the Melbourne City Council and the Camberwell Council having both made appointments during the year. The child development officers develop in their municipality a field of work suited to the conditions and needs of that municipality. They are able to co-ordinate the work and initiate services which will be beneficial to the community. There is a close liaison between the Maternal and Child Hygiene Branch and the municipal officer, and services in the municipality are developed in accordance with the standards laid down by the Department.

One of the interesting developments this year has been the establishment of a kindergarten service at the Frankston Orthopaedic Hospital. An experienced kindergarten teacher was appointed as director and she has been working in the wards with the children of pre-school age. The behaviour of the children is reflecting the value of this service. The provision of interesting play equipment is relieving tensions and giving the children a good outlet.

The importance of good mental health is being realised by those responsible for the conduct of various children's homes in the State. St. Luke's Home at Bendigo has recently established a kindergarten for the children. A trained kindergarten teacher is providing a programme which will enrich the experiences of the children and help their social and emotional development. The teacher is also working with trainee mothercraft nurses at the home giving them knowledge which will increase their understanding of the pre-school child.

Other children's homes have requested help in providing good play experiences for the children.

All-Day-Care Centres.

All-day-care centres continue to provide a valuable service for the children of mothers forced to earn a living. Through the efforts of municipal councils, the Victorian Association of Day Nurseries and Creches and individual committees, much has been done to improve buildings. North Melbourne, City, South Melbourne, and Richmond Creches have all had extensive alterations or additions. Plans have also been approved for additions to the Prahran and Northcote centres. Fitzroy has approval for an entire new building, the erection of which it is hoped to commence shortly.

Following the approach made to the Honourable the Minister in regard to high cost of maintenance of all-day-care centres, the subsidy was increased to £40 per child per annum.

With the transfer of the City Kindergarten from Exhibition-street to the Powlett-street Reserve, additional accommodation was available for extension of creche services. Alterations necessary for all-day-care were made by the Melbourne City Council and the City Creche is now able to have an enrolment of 51.

At the annual meeting of the Victorian Association of Day Nurseries this body decided to go into recess. Two of their all-day-care centres affiliated with the council will continue operating under the direction of the local kindergarten committees responsible for the centres and will be supervised by Departmental officers. Fawkner Park, however, now provides nursery kindergarten service only.

Total number of All-Day-Care Centres at 31st December, 1952.

Victorian Association of Day Nurseries and Creches	8
Non-affiliated Creches	4
Day Nurseries (Fawkner Park closed 1953) ..	3

Pre-School Medical Examinations.

TABLE 10.—PRE-SCHOOL ANNUAL MEDICAL EXAMINATIONS—1952.

Medical Officer.	Pre-School Centre.	Total Number.	Examined.	Local Doctor.	Not Examined.
Departmental Medical Officers ..	Metropolitan Kindergartens	79	73	1*	5
	Independent	44	40	..	4
	Church of England	14	14	..	..
	Roman Catholic	8	8	..	..
	Presbyterian	13	11	1*	1
	Metropolitan Play Centres	19	17	1*	1
	Independent	13	12	..	1
	Church of England	4	4	..	..
	Roman Catholic	1	..	1*	..
	Presbyterian	1	1	..	..
	Country Kindergartens	20	6	2	12
	Independent	17	6	2	9
	Roman Catholic	2	..	..	2
	Presbyterian	1	..	..	1
	Country Play Centres	33	16	2*	15
	Independent	33	16	2*	15
Free Kindergarten Union	Metropolitan Kindergartens	32	30	1*	1
	Metropolitan Play Centres	3	..	..	3
	Country Kindergartens	13	..	12	1
Municipal Medical Officer	Melbourne	*19 Free Kindergartens ; 1 Play Centre*	*19 Free Kindergartens ; 1 Play Centre*	..	..
	Lady Gowrie	1	1	..	..
	Independent Kindergartens ..	4	4	..	..
	Independent Play Centres ..	1	1	..	..
	Free Kindergarten Union ..	2	2	..	..
	Church of England Free Kindergarten	5	5	..	..
	Roman Catholic Free Kindergarten	5	5	..	..
	Presbyterian Free Kindergarten	2	2	..	..
	South Melbourne	*3 Free Kindergartens ; 2 Play Centres*	*2 Free Kindergartens ; 2 Play Centres*	*1 Free Kindergarten*	..
	Independent Play Centres ..	2	2	..	..
	Church of England Free Kindergarten	1	1	..	..
	Roman Catholic Free Kindergarten	1	1	..	..
	Presbyterian Free Kindergarten	1	..	1	..
	Total Number of Subsidized Kindergartens	166	130	17	19
	Total Number of Subsidized Play Centres	58	36	3	19

* Pre-School Centre in Children's Home or Hospital, examined by own Doctor.

During 1952 the Department's medical officers examined 4,287 children in pre-school centres, 3,286 in subsidized kindergartens and 1,001 in subsidized play centres. Medical officers visited all metropolitan centres with the exception of five (5) centres newly subsidized during the year. Twenty-two country centres were visited but arrangements could not be made for medical examination of 27 country centres.

Children are examined with the parent present and the parent then has the opportunity to discuss difficulties with the medical officer and to receive advice about any need for treatment. The common defects found continue to be carious teeth, nose and throat infections, knock knees, and the difficulties most frequently raised include feeding problems and behaviour problems. These difficulties frequently take up the greater part of the interview and often reflect the need for understanding and tolerance of the child's stages of development and of the family rivalries which arise. It is with such problems that the trained kindergartener is able to give much help to mothers.

Training.

Lack of trained personnel still hinders progress but it is encouraging that the enrolment at the Kindergarten Training College again shows an increase. Scholarships were offered to 20 full-time students and 20 play leaders. The interest of infant welfare sisters and mothercraft nurses in the three months' post graduate course that is offered at the Kindergarten Training College is increasing. Details of Government scholarships given for pre-school trainees in 1952–1953 and the total number awarded since inception of this policy are given below :—

—	1952–1953.	Total Number Awarded.
Kindergarten Teachers	20	103
Pre-school Play Leaders	20	67
Pre-school Mothercraft Nurses . .	8	23
Post Graduate Pre-school Course for Infant Welfare Sisters	4	16

Child Care Course.

The Department continues to conduct this course for students on nursing bursaries awarded by the Hospitals and Charities Commission. Students are allocated to all-day-care centres or nursery kindergartens for practical experience with well children. Guidance is given by the trained staff at the centre and a Departmental officer is responsible for supervision of training. One afternoon each week is given to a course of lectures arranged by the Department. This year efforts have been made to provide in vacation periods some experience in all day care for those working in kindergartens. Visits to infant welfare centres are also made by all trainees. The course is proving most beneficial to the girls as a preliminary to nursing and is helping pre-school centres with staffing problems. The number of students in 1952 was 31 and this number has increased to 40 for 1953.

STAFF.

There have been many changes towards the end of 1952 and the beginning of 1953.

Dr. A. E. Wilmot, the Assistant Director, was granted a year's leave of absence to undertake the duties of Adviser on Maternal and Child Welfare for World Health Organization at Manila. Her responsibilities are the Philippines, Indo China, Hong Kong, and Japan. She left to undertake this work early in December.

Dr. Norma Kelso returned from a year's leave in England at Christmas and resumed duty in January.

Dr. Mildred Green, Dr. R. Williams, and Dr. Gepp, Pre-school Medical Officers resigned, their places being taken by Dr. Fairlie Springall, Dr. Ruth Green and Dr. Ruby Townsend.

Five medical officers were appointed for work in the ante natal clinics on a sessional basis—

> Dr. Alexe Gale, Dr. Gladys Ferguson, Dr. Aileen Foley, Dr. Gwen Hewett, and Dr. Joan Mowlam.

Two holders of Vera Scantlebury Brown Scholarships returned to Victoria and joined the staff. Miss Beth Stubbs spent the greater part of her time in the U.S.A. and obtained a degree in Early Childhood Education at the Columbia University. She was appointed Chief Pre-School Officer to the Department. Miss May Holmes, Vera Scantlebury Brown Scholar for 1951, spent two years in England. She undertook courses in parent guidance arranged by the College of Nursing and worked in health services in London and as a health visitor in Birmingham. This year she has been responsible for the mothercraft lectures in schools.

Miss Serpell, one of the earliest members of the staff of the Department, resigned her position and left for England early this year. Miss Serpell will be remembered by mothers all over Victoria for her mothercraft advice. She has conducted the Department's correspondence scheme for many years and has also given considerable help with Departmental publications. The popular recipe book was largely her responsibility.

Miss Eakins, our social worker, also resigned and left for England to gain further experience.

Miss McDowell, a member of the infant welfare staff, was successful in gaining her health inspector's certificate at the recent examination and has been appointed to the vacancy caused by Miss Serpell's resignation.

It is with great regret that we lose the services of Miss Lyell, our dietitian. Miss Lyell has given outstanding service with expectant mothers in our ante natal clinics, checking carefully the diets of those who gain excess weight and helping mothers to budget for family needs as cheaply as possible. Miss Lyell is taking a part-time position in the infant welfare field.

Miss Vivienne Holmes, who has spent 3 to 4 years in our mobile circuits, resigned her position on account of her approaching marriage.

We welcome Miss Fry, Miss Allen, Miss Merbach, Miss Watson, Miss Robbins, Miss Deakin to the infant welfare staff and Miss Hicks and Miss Wilson to the pre-school staff.

Miss Goldenberg, who has been a member of the pre-school staff of the Department since its inception, resigned to take up the post of pre-school child development officer to the Melbourne City Council. We shall miss her greatly from the staff but are happy to know that she will still be closely associated with us.

Miss Sealey, one of the pre-school supervisors, who gave most valuable help with pre-school lectures in our mothercraft training schools, resigned and has taken charge of the work at the Orthopaedic Hospital, Frankston, mentioned elsewhere in the report.

WORK OF DEPARTMENTAL STAFF—DETAILS FOR THE YEAR ENDING 31ST DECEMBER, 1952.

Investigations concerning establishment of new Centres	20
Inspections—	
Prospective Infant Welfare Centres	29
Temporary Infant Welfare Centre Premises and Building Sites	20
Metropolitan Infant Welfare Centres	100
Country Infant Welfare Centres including Mobile	288
Training Schools	8
Holiday Homes, Creches, &c.	88
Addresses and Lectures, Public Meetings, and Conferences	526
Mothercraft Lectures in Schools	426
Numerous office interviews.	

Preparation, revision, and distribution of literature, pamphlets, booklets, and posters.

Reception and analysis of quarterly and annual reports from pre-natal, infant welfare, pre-school centres, and creches.

TABLE 11.—EXPENDITURE 1951–52.

	£	£
Salaries—		
Medical and Administrative	7,923	
Infant Welfare and Pre-school	22,814	
Clerical Assistance	8,728	
		39,465
Subsidies, &c.—		
To Municipalities—		
Infant Welfare Centres	70,282	
Emergency Housekeeper Services	4,710	
To Training Schools—		
Infant Welfare	5,000	
Kindergarten	10,000	
Mothercraft	8,333	
To Kindergartens and Play Centres	82,160	
To Creches and Day Nurseries	20,048	
Rail Passes	909	
Pre-school Scholarships	14,461	
		215,903
Contingencies—		
Office Expenses	9,420	
Travelling Expenses	6,333	
Expenses Mobile Circuits	3,732	
		19,485
		274,853

RECOMMENDATIONS.

1. Adequate provision for extension of infant welfare training to equip sisters to use advancing knowledge to meet modern needs.

2. Infant welfare maintenance subsidy to be based on 50 per cent. cost of service.

3. Provision for extension of ante-natal services.

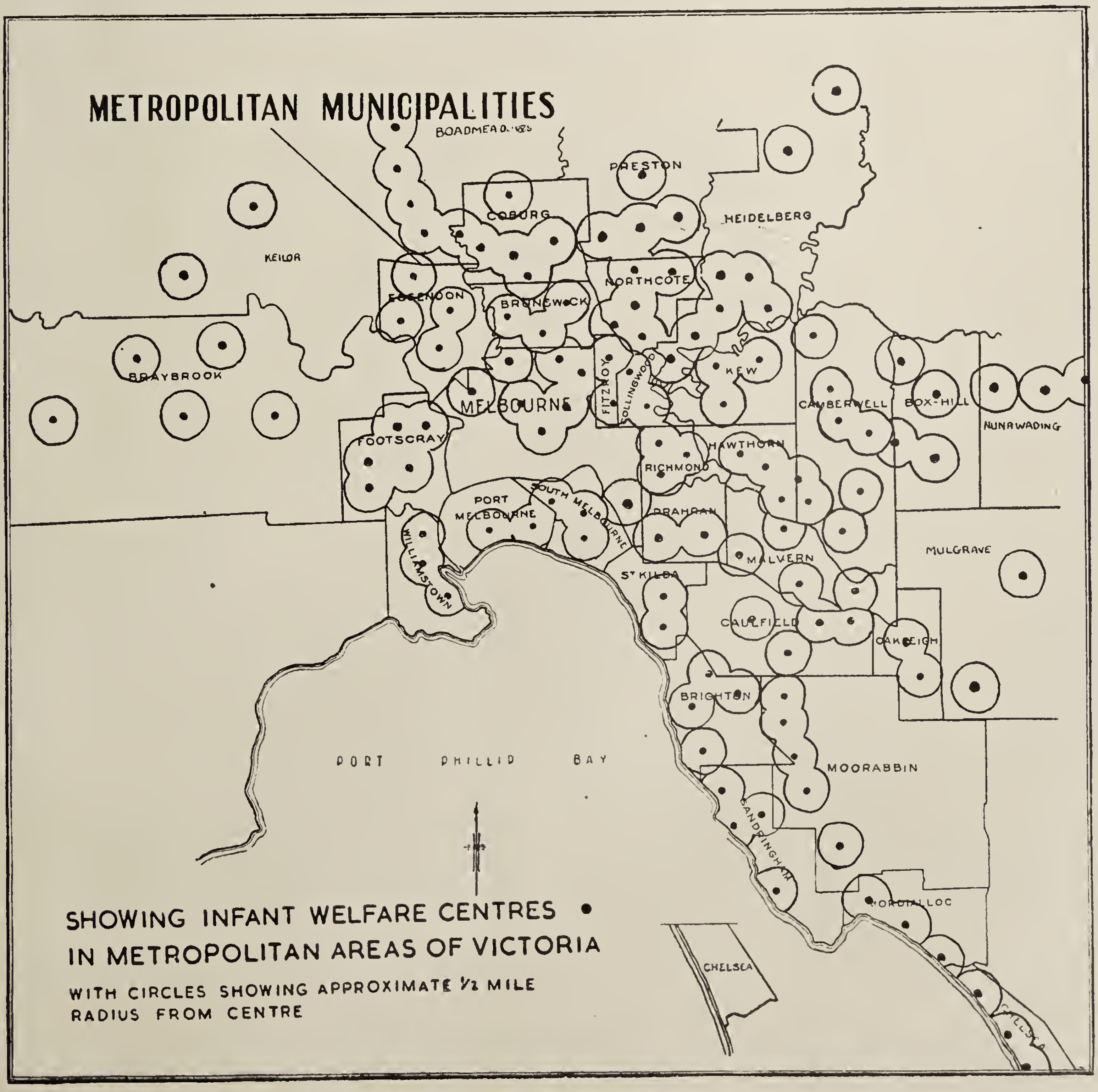
4. Increased grants to municipalities for appointment of supervisory officers—e.g., child welfare medical officers and pre-school child development officers.

5. Consideration of provision of adequate supervisory care for subsidized pre-school centres in country areas either through Departmental regional officers or municipal pre-school child development officers.

6. Increased subsidy to kindergartens in country towns for provision of all day emergency care for children visiting town from outlying areas.

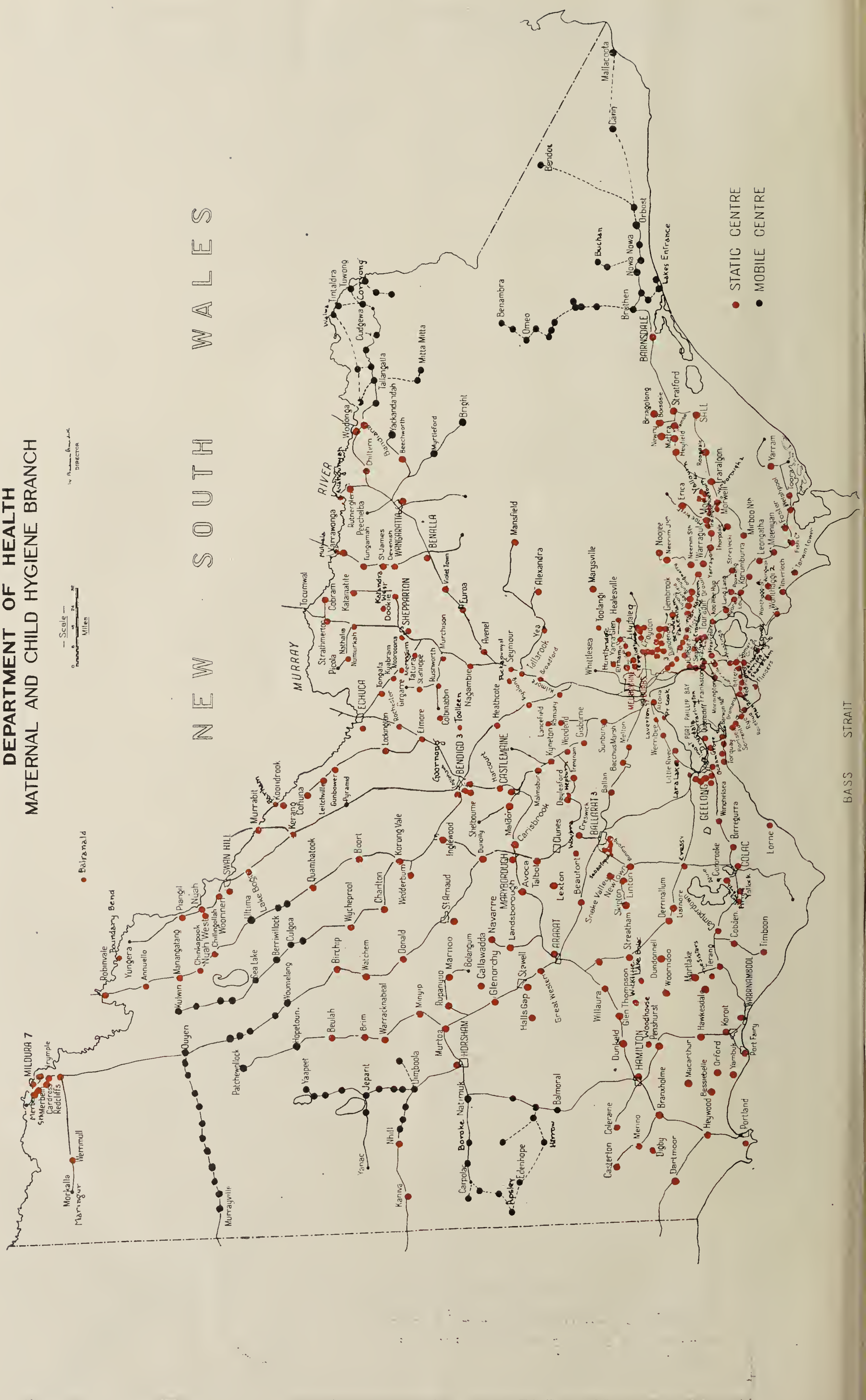
7. Additional finance for provision of scholarships for training health personnel.

W. BARBARA MEREDITH, B.A., M.B., B.S.,
Director of Maternal, Infant, and Pre-school Welfare.



VICTORIA

DEPARTMENT OF HEALTH
MATERNAL AND CHILD HYGIENE BRANCH



REPORT OF THE SCHOOL HEALTH SERVICE, VICTORIA—1st JULY, 1952, TO 30th JUNE, 1953.

SUMMARY OF WORK.

CHILDREN EXAMINED DURING CALENDAR YEAR, 1952.

Type of School.	Boys.	Girls.	Total.
State—			
Primary	29,144	28,851	57,895
High	4,244	2,634	4,878
Technical	3,706	1,183	4,889
Girls	. .	1,854	1,854
Registered (Primary)	7,821	10,030	17,541
Children's Homes and Institutions	337	179	516
Total	45,252	44,631	89,883

TEACHERS EXAMINED, 1952.

——	Men.	Women.	Total.
Entrants, Superannuation, &c. . .	1,167	1,276	2,443
Sick Leave	151	178	329
	1,318	1,454	2,772

EXAMINATIONS FOR CLEANLINESS, ETC.

Inspections for skin and hair conditions carried out by the nursing staff numbered 315,835 (235,736 in State Schools and 80,099 in Registered Schools).

STAFF.

——	30th June, 1953.	30th June, 1952.
Chief Medical Inspector	1	1
Assistant Chief Medical Inspector . .	1	1
Medical Officers (full-time), male . .	12	10
Medical Officers (full-time), female . .	8	10
Medical Officers (part-time), male . .	1	1
Medical Officers (part-time), female . .	1	. .
Nurses	35	31
Clerical (full-time)	6	4
Clerical (part-time)	. .	1
Disinfector	1	1

The number of children examined during the year—89,883—compares favorably with the number examined during 1951—i.e., 65,221. This total, however, is still below that required if every school child in the State is to be examined at three-yearly intervals. If the number of primary school children in the State be taken as approximately 350,000, there is one medical officer to every 17,500 children. In England the latest published reports give the proportion as one to every 6,425, so that by this standard our service is greatly understaffed. Actually 25·6 per cent. of children in the State were examined, but obviously this should be over 33 per cent. to be satisfactory. Migration and the higher post-war birth rate have caused a rapid expansion in the school population and has resulted in overflowing classrooms and many difficulties in accommodation which the visit of the school medical officer has strained still further. A room for the use of medical and dental officers, of suitable dimensions and reasonably quiet is a necessity. In large schools the medical examinations may require several weeks and it is hoped that provision will be made for such a room in the plans for future schools.

Medical inspections were carried out during 1952, in the Regions of East Gippsland, Gippsland, Glenelg, and Port Phillip, and during the first six months of 1953, work was commenced in the Regions of Goulburn and Central Highlands.

Four additional school nurses were appointed during the year, and in addition to continuous supervision of Metropolitan schools visits were made to schools in Ballarat, Bendigo, Geelong, Shepparton, and the Moe–Yallourn–Morwell areas.

The total of 315,835 examinations by the nurses for the year compares very favorably with the 204,293 examinations for the previous year. The incidence of pediculosis was found to be 1·68 per cent., and shows improvement on previous years as it was 1·9 per cent. for 1952, and 2·2 per cent. for 1951. Infectious skin conditions varied little from 1952 and have not presented any serious problem, the incidence of scabies being shown as only 0·02 per cent., impetigo 0·26 per cent., and ringworm 0·05 per cent.

A follow-up to ascertain the results of the medical inspections was made by the nursing staff during the vacations as shown in Tables 1 and 2. Twenty-five schools were followed up during the May vacation, thirty-two during the September vacation, and seventy-one during the January holidays 1953.

The result (Table 2) shows that of 6,701 defects (other than dental) notified, no action was taken by the parent in 1,593 cases or 23·7 per cent. A definite promise for action was given in 21·6 per cent., an appointment for treatment had been made in 8·2 per cent. (557), the child was actually under treatment in 20·9 per cent. (1,402), and treatment was complete in 1,536 or 22·9 per cent. Thus treatment was reasonably certain for at least 76·3 per cent. For dental defects 17·7 per cent. had taken no action, while 64·8 per cent. had made appointments with a dentist, were receiving or had completed their treatment, and in a further 15·6 per cent. treatment was reasonably certain.

The sudden death of Sister Lord in October, 1952, while on duty, was a severe loss to our service. Her duties included investigation of special cases referred on account of behaviour problems, truancy, &c., and called for endless patience and tact in dealing with "difficult" parents and children. Sister Lord possessed these virtues in abundance and gave herself whole-heartedly to her work.

GENERAL.

Much interest was taken in the visit of Sir Allen Daley, former School Medical Officer to the London County Council, in February, 1953, and he was kind enough to devote portion of a morning in a very full programme to meeting the staff of the School Health Service. His stimulating address on the medical work in schools carried out in the City of London was followed with keen interest by both medical officers and nurses, and the film illustrating educational work with handicapped children was much appreciated.

Visits were received during the year from Dr. Dorothy Simpson of the New Zealand Child Health Service, and from Dr. Meyer, Acting Director of the School Medical Service, New South Wales.

An excellent refresher course for the medical officers was again very kindly arranged by the Director of the Children's Hospital (Dr. Collins) and took place during the May vacation. Extremely interesting lectures and clinical demonstrations were given by leading paediatricians on such subjects as cerebral palsy, common orthopaedic problems, congenital heart disease, rheumatism, skin and eye disorders, &c. The whole course was a pronounced success.

A height and weight survey was carried on throughout 1952, and the figures are in the process of analysis. It is hoped that results can be published in the next annual report.

The distribution of milk was again interrupted for some weeks by a shortage of supplies.

The helpful co-operation of the social workers and almoners of the various hospitals, the Crippled Children's Society, the psychiatric clinics of the Mental Hygiene Authority, the Children's Health Bureau (R.S.S.A.I.L.A.), the Psychology Branch of the Education Department, &c., is gratefully acknowledged. Special thanks are also due to the Director of the Royal Children's Hospital for his interest and assistance in the solving of many clinical problems.

BUSH NURSES.

A summary of the work carried out by the bush nurses in various country centres is shown in Table 3. Over sixty-three hours have been spent in schools by sisters in eleven centres. Short talks on hygiene are given and that these are practical and adapted to the understanding of the children is shown by the examination papers received. One period during the year is usually devoted to a medical examination and children in remote areas not included in regular visits by the school medical officer thus receive the benefit of a periodical check.

CLEANSING CENTRES.

The Health Clinics at Coburg, Brunswick, Collingwood, and Footscray (part-time) have continued their excellent work. An additional clinic established and staffed by the Brotherhood of St. Laurence has been of great assistance in the Fitzroy area and the City of Melbourne has now opened a centre in Canning-street, Carlton, and provided transport to and from schools in the City. Special thanks are due to the City Health Officer (Dr. Philip Gilbert) for his efforts in establishing this clinic and giving it his personal supervision. The sisters in charge of all centres have co-operated whole-heartedly with the teachers in the various Metropolitan districts, and are deserving of great praise for carrying out their duties with so much enthusiasm and tact.

SPECIAL CASES.

A total of 572 children from pre-school to fifteen years of age—were referred for special investigation. The greatest number—163—was reported by the teachers to the school sister during her hygiene inspections or found during the routine examinations by the school medical officer and sent in for a more detailed examination, usually on account of a behaviour problem. One hundred and twenty-eight cases were referred by the attendance branch, mainly because of long periods of irregular attendance, applications for exemption by the parent and truancy. More than half of these cases—53 out of 105—came from the twelve and thirteen year old groups. In addition to the cases referred because of truancy (fourteen) others referred as behaviour problems were found, on investigation, to be truants and included one family of three children (two boys and one girl) and another family of two brothers. Six of the 23 cases were girls, fourteen were twelve years of age or over, two were aged seven. In at least twelve cases the home situation was unsatisfactory. Six children were referred because of their refusal to attend school. One was aged seven years one month, one, thirteen years five months, and the other four were in the ten–eleven year old group. All were referred for psychiatric treatment.

Ninety-three (16 per cent.) were referred solely on account of a behaviour problem but here the younger ages—six to nine year olds supplied 50 per cent. One hundred and twenty-nine children after investigation and in most cases a physical examination, were referred on to a psychiatric clinic. These included all behaviour problems, truants, and markedly retarded children. Sixty-eight children were referred for medical examination by the Psychology Branch of the Education Department before admission to special schools and classes, and 29 children were referred, for assessment, to the Psychology Branch by the school medical officer. The co-operation of the Psychology Branch is much appreciated and the linking up of mental and physical examination ensures that due allowances are made for any child who is handicapped by a physical defect such as defective hearing or eyesight.

PARTIALLY-SIGHTED CLASS.

The average attendance of this class remains about fifteen. Transport still presents the main problem, and as the class is at the State school, Pigdon-street, Carlton, only children who live in the northern suburbs are provided for. The class has been kept under regular supervision by a school medical officer.

A small survey was carried out to ascertain the probable number of children suffering from strabismus (squint). To obtain a fair sample the cards of all children attending schools catalogued under the letter " C " were examined. This gave a total of 8,412 girls and 7,023 boys. Of these, 251 girls (2·9 per cent.) and 39 boys or 0·5 per cent. showed signs of a definite squint. In addition 24 girls and seventeen boys had undergone an operation for the condition, thus giving a total incidence of 3·2 per cent. in girls and 0·8 per cent. in boys. Vision was useless in one eye in the case of 93 girls or 1·1 per cent., and 24 boys or 0·3 per cent. Nystagmus was found very rarely, being present only in three girls. City and country showed a fairly equal incidence for girls, the percentages being 3·1 per cent. in the country and 3·3 per cent. in the metropolitan area, but for boys 1·7 per cent. were found in the country and 0·5 per cent. in the city. As might be expected operations had been carried out in only a very small number of country children, i.e., six out of a total of 41.

OPEN-AIR SCHOOL, BLACKBURN.

In 1952, twenty children (twelve boys and eight girls) were selected by our school sister from State schools in the inner industrial area of the eastern suburbs as suitable to attend the Open-Air School at Blackburn. Each child was examined by the school medical officer before enrolment, and regular supervision was maintained by her visits at the end of each term and by the school sister's frequent " follow up " visits.

The children travel to and from school by the Education Department's special bus. The midday meal at the school is a modified Oslo meal, and there is an adequate supply of fresh fruits in season and abundant fresh milk. A weekly record of each child's height and weight is carefully graphed and all children showed a gain in both—the average gain in weight at the end of eight months being nine pounds, and in height $\frac{5}{8}$ of an inch. The minimum gain in weight was four pounds, the maximum, twenty pounds. All children showed a marked improvement in general health and attitude to school work.

REMEDIAL GYMNASIUMS.

In August, 1944, the first remedial gymnasium was started by the Education Department in an unused classroom in the old school in Queensberry-street, Carlton. Since then a special gymnasium was built in Lygon-street, North Carlton, and another was established in a converted classroom at the Elsternwick State school.

These have been developed with the object of giving special training to the physically sub-normal group of children.

Our medical inspection staff have noted over the years that approximately 20 per cent. of children show definite posture defects.

Preventive, corrective, and remedial work has its greatest chance of success when applied to the younger child.

A child with physical defects cannot be classed as normal and the longer the abnormal state persists the more difficult it is to correct the abnormal habits so formed.

For example, a child suffering from malnutrition or sub-normal health due to unhealthy tonsils will develop a faulty posture; this faulty posture leads to poor body mechanics, and so even though nutrition and general health are treated and improved, unless there is re-education in body mechanics, poor posture tends to remain.

It has been our experience that the older the child is when remedial exercises are started the less satisfactory the response. Owing mainly to staff problems (now overcome) the three gymnasiums have not been able to work to full capacity, but we are pleased to report that the following numbers were treated.

	Boys.	*Girls.*
Lygon-street ..	308 ..	246
Queensberry-street ..	248 ..	278
Elsternwick ..	156 ..	276
Total	722 ..	800 i.e., 1,522 cases

Before being enrolled at the gymnasium each child is given a complete medical examination and any defects observed are recommended for treatment.

The services of a school nurse are invaluable in this respect as she not only helps in guaranteeing that treatment is obtained but she is able to give personal advice to parents on hygiene and nutrition problems.

At present we are able to keep the gymnasiums working to full capacity by restricting selection to those schools which are within easy travelling distance.

In this way the children are absent from their school for a minimum time, and co-operation between the school and the gymnasium is most easily maintained.

It then means that only those schools within a radius of about three miles have, so far, had the benefit of this service and unless new gymnasiums are equipped in selected areas, there does not appear to be any prospect of making this service available to a larger number of children.

SPEECH THERAPY.

There has been a further increase in the number of children examined in regard to speech defects. Of 375 children who were referred to the School Medical Service on this account, 316 kept their appointments and were examined. These were disposed as follows:—

Referred to Education Department's speech therapists	281
Referred to psychiatrist	5
Advised to seek medical or surgical treatment	67
Deferred for observation	19
Not suitable for speech therapy	20

HEARING DEFECTS.

There has also been an increase in the number of children referred for examination of ears and audiometric testing. The number examined was 160, and results were as follows:—

Referred to Commonwealth Acoustic Laboratory with recommendation for supply of hearing aid	22
Advised to seek treatment by Aurist ..	38
Recommended for Kew Oral School ..	35

The remainder required no special attention.

DEFECTS FOUND IN 190 CHILDREN REFERRED FOR REMEDIAL TUITION IN 1952.

Number Examined: 190 (140 Boys and 50 Girls).

—	Numbers.	Percentages.
Vision (Note 1)—		
Defect notified	13	6·8
Wearing glasses	6	3·1
Hearing (Note 2)	10	5·2
Nose and throat—		
Defect notified	8	4·2
Previous operations	77	40·5
Teeth	50	26·3
Hair	2	1·05
Skin	5	2·6
Urinary (Note 3)	21	11·0
Postures	19	10
General Health (Note 4)	18	9·4
Habits—Nail biting, &c.	33	17·3
Speech	11	5·7
Heart	1	·5

Notes.

1. *Vision.*—One boy had perception of light only in one eye: three others had defective vision in one eye of 6/24 and less.

2. *Hearing.*—One child wore a hearing aid: five had defective hearing in both ears and four had loss in one ear.

3. *Urinary.*—All twenty-one cases were enuretic.

4. *General Health.*—Six children were under treatment for asthma, three for "nerves", three for "poor appetite, &c.", three were overweight. No allergic factor was discovered in four of the asthma cases.

Of the 190 examined, some had been referred from psychiatric clinics, while some others were referred for psychiatric investigation. All the children examined admitted that reading failure worried them. The majority showed evidence of insecurity and anxiety, and this was more pronounced in the older age group.

DEFECTS IN CHILDREN ATTENDING SPECIAL SCHOOLS—EXAMINED 1952.

NUMBER EXAMINED : BOYS 122, GIRLS 74 ; TOTAL 196.

—	Boys.	Girls.	Total.	Percentage.
Vision (Note 1)—				
Defect notified ..	23	11	34	17·3
Wearing glasses ..	9	13	22	11·2
Unable to test ..	14	10	24	12·2
Hearing (Note 2)	9	5	14	7·1
Teeth	42	28	70	35·7
Nose and Throat—				
Defect notified ...	7	5	12	6·1
Previous operations ..	56	29	85	43·3
Urinary	19	15	34	17·3
Heart (Note 3)	6	2	8	4·0
General Health (Note 4) ..	23	15	38	19·4
Hair	3	10	13	6·6
Skin	12	13	25	12·7
Posture	37	32	69	35·2
Habits—Nail biting, &c. ..	22	19	41	20·9
Speech (Note 5)	40	22	62	31·6
Other defects (Note 6) ..	28	13	41	20·9

NOTES.

1. *Vision.*—Of the 34 notified, thirteen had obvious squints. The untestable children included both those who had just been enrolled as well as a small number of others whose span of attention was too short to admit of a reliable result. The majority are tested satisfactorily at a later examination.

2. *Hearing.*—Four children who had bad speech defects, as well as very defective hearing, were referred for audiometric investigation : five others were under treatment and the others were advised treatment.

3. *Heart.*—Six of the children were under medical observation. The parents knew of the cardiac condition.

4. *General Health.*—In sixteen the general nutrition was poor, in nine the weight was very much above average (two were cases of Froehlich's syndrome). The majority of these children were under treatment for coughs, " nerves ", asthma, &c.

5. *Speech.*—The majority of these were now having treatment from speech therapists.

6. *Other Defects.*—Sixteen were under treatment for epilepsy, sixteen for spasticity, two for hemiparesis, two for congenital deformity of a limb, &c. There was one case of achondroplasia.

Postures.—Only the poor postures are included.

SUMMARY—SCHOOLS EXAMINED, 1952.

—	Boys.	Girls.	Total.
Region of Port Phillip—			
City of—			
Box Hill	1,888	1,717	3,605
Brunswick	1,212	16	1,228
Camberwell	3,524	5,409	8,933
Caulfield	4,892	4,652	9,544
Chelsea	100	104	204
Coburg	1,621	640	2,261
Collingwood	2,432	1,763	4,195
Essendon	1,416	809	2,305
Fitzroy	1,380	414	1,794
Footscray	822	492	1,314
Hawthorn	1,215	1,382	2,597
Heidelberg	3,208	3,165	6,373
Kew	1,083	790	1,873
Malvern	1,271	1,111	2,382
Melbourne	514	169	683
Moorabbin	133	1,151	1,284
Region of Port Phillip—*continued.*			
City of—			
Northcote	787	1,578	2,365
Nunawading	1,131	897	2,028
Oakleigh	2,354	1,240	3,594
Prahran	2,359	943	3,302
Preston	2,459	2,536	4,995
Richmond	1,024	1,304	2,328
South Melbourne	..	726	726
Total	..	..	69,913
Borough of Ringwood ..	58	272	330
Total	..	..	330
Shire of—			
Braybrook	..	297	297
Broadmeadows	390	371	761
Bulla	197	98	295
Doncaster	173	140	313
Eltham	927	919	1,846
Frankston and Hastings ..	..	422	422
Healesville	366	386	752
Lilydale	..	368	368
Mulgrave	229	492	721
Upper Yarra	188	157	345
Werribee	31	345	376
Whittlesea	304	286	590
Total	..	..	7,086
Region of Gippsland—			
Borough of Wonthaggi ..	453	533	986
Shire of—			
Alberton	237	246	483
Korumburra	408	361	769
Mirboo	70	49	119
Morwell	1,824	978	2,802
South Gippsland	325	280	605
Traralgon	497	693	1,190
Woorayl	219	481	700
Total	..	..	7,654
Region of East Gippsland—			
Town of Sale	..	101	101
Shire of—			
Bairnsdale	41	277	318
Maffra	..	123	123
Omeo	127	147	274
Orbost	370	367	737
Rosedale	18	14	32
Tambo	253	250	503
Total	..	..	2,088
Region of Loddon—			
City of Bendigo	142	487	629
Total	..	..	629
Region of Goulburn—			
City of Shepparton	292	361	653
Total	..	..	653
Region of Glenelg—			
City of Hamilton	193	197	390
Town of Portland	110	165	275
Shire of—			
Dundas	96	106	202
Mount Rouse	28	25	53
Wannon	91	88	179
Total	..	..	1,099
Queenscliff Camp	..	563	563
Total	..	..	563
Additional (returns received too late for inclusion)—			
Town of Portland	316	235	551
Total	..	..	551
Shire of Orbost	50	82	132
Total	..	..	132

SCHOOLS EXAMINED—FIRST, SECOND, AND THIRD TERMS, 1952.

——	Boys.	Girls.
Region of Port Phillip—		
City of Box Hill—		
State School, Box Hill	454	390
State School, Box Hill South	..	276
Girls' School, Box Hill	..	347
State School, Mont Albert	441	423
State School, Wattle Park	142	105
City of Brunswick—		
State School, Brunswick North-west	266	..
Technical School, Brunswick	594	..
City of Camberwell—		
State School, Alamein	259	238
State School, Auburn	465	..
State School, Ashburton	..	348
State School, Balwyn	..	218
State School, Balwyn North	..	229
State School, Burwood	235	209
Kildonan Homes, Burwood	38	33
State School, Camberwell	308	300
High School, Camberwell	293	352
Girls' School, Camberwell East	..	726
Salvation Army Homes, Camberwell East	..	28
State School, Camberwell South	293	260
State School, Canterbury	..	387
State School, Chatham	225	218
State School, Glen Iris	314	247
State School, Hartwell	..	325
State School, Surrey Hills	..	248
Registered schools—		
St. Michael's, Ashburton	..	185
All Hallows, Balwyn	34	42
St. Bede's, Balwyn North	68	59
St. Benedict's, Burwood	94	..
Our Lady of Victories, Camberwell	108	158
St. Cecilia's, Camberwell South	94	120
St. Dominic's, Camberwell South	94	120
Our Lady of Good Counsell, Deepdene	59	92
St. Roch's, Glen Iris	75	65
Holy Redeemer, Surrey Hills	..	178
St. Joseph's, Surrey Hills	138	..
City of Caulfield—		
State School, Caulfield	..	271
State School, Caulfield North	441	438
State School, Carnegie	236	277
State School, Ormond	..	296
State School, Ormond East	..	382
Registered Schools.		
St. Aloysius, Caulfield	86	..
St. Joseph's, Elsternwick	..	80
St. Anthony's, Glenhuntly	136	..
St. Kevin's, Ormond	..	164
St. Patrick's, Murrumbeena	83	90
City of Chelsea—		
State School, Aspendale	..	104
City of Coburg—		
State School, Bell-street, Coburg	421	..
State School, Coburg West	492	..
State School, Newlands	220	..
Registered Schools.		
St. Paul's, Coburg	252	212
St. Bernard's, Coburg East	60	86
St. Fidelis', Moreland	176	242
City of Collingwood—		
State School, Abbotsford	..	210
State School, Gold-street, Clifton Hill	220	209
State School, Spensley-street, Clifton Hill	143	124
State School, Collingwood	220	..
State School, Cromwell-street, Collingwood	214	259
State School, Cambridge-street, Collingwood	124	115
State School, Lithgow-street, Collingwood	104	..

SCHOOLS EXAMINED—FIRST, SECOND, AND THIRD TERMS, 1952—*continued.*

——	Boys.	Girls.
Region of Port Phillip—*continued.*		
City of Collingwood—*continued*—		
State School, Victoria Park	308	118
State School, Westgarth	517	..
Registered Schools.		
St. Euphrasia's, Abbotsford	109	162
St. Joseph's, Abbotsford	..	192
St. John's, Clifton Hill	103	237
St. Thomas's, Clifton Hill	260	..
St. Joseph's, Collingwood	110	137
City of Essendon—		
High School, Essendon	270	517
Technical School, Essendon	572	..
Registered Schools.		
St. Theresa's, Essendon	223	..
St. Vincent de Paul's, Essendon	153	142
City of Fitzroy—		
State School, George-street, Fitzroy	250	..
State School, Alfred-crescent, Fitzroy North	307	..
State School, Falconer-street, Fitzroy North	190	..
State School, Miller-street, Fitzroy North	239	..
Registered Schools.		
St. Brigid's, Fitzroy North	257	280
St. Patrick's, Fitzroy	137	..
Sacred Heart, Palmer-street, Fitzroy	..	134
City of Footscray—		
Junior Technical School, Footscray	822	..
City of Hawthorn—		
State School, Auburn	465	444
State School, Auburn South	270	250
State School, Manningtree-road, Glenferrie	166	310
State School, Hawthorn West	..	250
Registered School.		
St. John's, Glenferrie	278	..
City of Heidelberg—		
State School, Alphington	124	82
State School, Bellfield	..	89
State School, Diamond Creek	42	26
State School, Fairfield	307	290
State School, Fairfield North	..	268
State School, Greensborough	153	124
State School, Heidelberg	233	438
State School, Heidelberg West	400	346
State School, Ivanhoe	414	..
State School, Ivanhoe East	332	242
State School, Macleod	..	63
State School, Plenty	33	27
State School, Rosanna	144	121
State School, Yarrambat	16	4
Registered Schools.		
St. Anthony's, Alphington	184	196
St. Francis, Greensborough	52	39
St. John's, Heidelberg	189	186
Immaculate Conception, Ivanhoe	58	61
St. Bernadette's, Ivanhoe West	..	74
City of Kew—		
State School, Kew	443	..
State School, Kew East	467	438
Registered Schools.		
Sacred Heart, Kew	..	151
St. Anne's, Kew East	75	..
City of Malvern—		
State School, Spring-road, Malvern	450	352
State School, Tooronga-road, Malvern	181	204
State School, Lloyd-street, Malvern East	431	413

SCHOOLS EXAMINED—FIRST, SECOND, AND THIRD TERMS, 1952—*continued.*

——	Boys.	Girls.
Region of Port Phillip—*continued.*		
City of Malvern—*continued*—		
Registered Schools.		
St. Joseph's, Malvern	134	..
Holy Eucharist, Malvern East	75	71
St. Mary's, Malvern East	..	71
City of Melbourne—		
St. George's, Carlton	200	136
St. Mark's, Carlton North	..	33
City of Moorabbin—		
State School, Braeside	21	10
State School, Cheltenham	..	397
State School, Clarinda	86	94
State School, Heatherton	..	47
State School, Moorabbin	..	382
State School, Moorabbin West	..	221
City of Northcote—		
State School, Wales-street, Northcote	..	342
State School, Helen-street, Northcote	431	..
State School, Hutton-street, Thornbury	..	314
State School, Pender's-grove, Thornbury	185	..
State School, Westgarth	..	546
Registered School.		
St. Joseph's, Northcote	150	119
City of Nunawading—		
State School, Burwood East	77	74
State School, Blackburn	312	250
State School, Blackburn South	174	150
State School, Forrest Hill	105	80
State School, Mitcham	194	203
State School, Nunawading	..	68
State School, Nunawading Migrant Camp	35	..
State School, Vermont	160	..
St. John's, Mitcham	74	72
City of Oakleigh—		
State School, Hughesdale	635	..
State School, Oakleigh	450	438
State School, Oakleigh East	337	355
Technical School, Oakleigh	565	..
Registered Schools.		
Sacred Heart, Oakleigh	236	327
St. Anthony's, Oakleigh	131	120
City of Prahran—		
State School, Armadale	202	164
State School, Hawksburn	424	380
State School, Prahran	..	176
State School, Toorak	212	..
State School, Windsor	252	..
High School, Melbourne	1,100	..
Registered School.		
St. Francis Xavier, Prahran	..	54
City of Preston—		
State School, Bell	345	..
State School, Tyler-street, Preston	..	415
State School, Preston South	311	330
State School, Preston West	508	541
Technical School, Preston	572	..
State School, Reservoir	470	..
Registered Schools.		
Sacred Heart, Preston	..	347
Holy Name, Preston East	..	78
St. Raphael's, Preston West	..	315
St. Gabriel's, Reservoir	210	323
City of Richmond—		
State School, Burnley	198	203
State School, Brighton-road, Richmond	130	..
State School, Cremorne-street, Richmond	121	109

SCHOOLS EXAMINED—FIRST, SECOND, AND THIRD TERMS, 1952—*continued.*

——	Boys.	Girls.
Region of Port Phillip—*continued.*		
City of Richmond—*continued*—		
State School, Gleadell-street, Richmond	119	124
State School, Davidson-street, Richmond North	..	194
Registered Schools.		
St. Louis', Burnley	44	47
St. Stanislaus', Richmond	42	24
St. Ignatius', Richmond	59	282
St. James', Richmond North	116	40
City of South Melbourne—		
High School, MacRobertson	..	726
Borough of Ringwood—		
State School, Ringwood North	58	50
Registered School.		
St. Mary's, Ringwood	..	62
Shire of Braybrook—		
Technical School, Sunshine	..	297
Shire of Broadmeadows—		
State School, Beveridge	7	5
State School, Greenvale	17	14
State School, Somerton	..	13
State School, Strathmore	226	188
State School, Upper Plenty	6	6
State School, Wallan	29	22
Registered School.		
St. Mark's, Fawkner	105	123
Shire of Bulla—		
State School, Bulla	12	10
State School, Kalkallo	6	5
State School, Shandon	7	8
State School, Sunbury	36	30
Registered Schools.		
St. Mary's, Sunbury	40	45
Rupertswood, Sunbury	96	..
Shire of Doncaster—		
State School, Doncaster	95	65
State School, Doncaster East	78	75
Shire of Eltham—		
State School, Briar Hill	74	64
State School, Christmas Hills	9	9
State School, Dixon's Creek	4	5
State School, Eltham	105	104
High School, Eltham	186	205
State School, Eltham North	25	33
State School, Hurstbridge	56	58
State School, Kangaroo Ground	29	14
State School, Kinglake	19	14
State School, Kinglake Central	10	22
State School, Lower Plenty	40	46
State School, Montmorency	116	109
State School, Panton Hills	32	25
State School, Research	42	34
State School, St. Andrews	15	10
State School, Steels Creek	2	10
State School, Strathewen	3	4
State School, Templestowe	54	58
State School, Yarra Glen	44	30
Registered School.		
Our Lady's, Eltham	62	65
Shire of Frankston and Hastings—		
High School, Frankston	..	422
Shire of Healesville—		
State School, Badger Creek	35	25
State School, Buxton	16	10
State School, Cambarville	2	12
State School, Chum Creek	6	13
State School, Healesville	184	192
State School, Marysville	46	50

SCHOOLS EXAMINED—FIRST, SECOND, AND THIRD TERMS, 1952—*continued.*

——	Boys.	Girls.
Region of Port Phillip—*continued.*		
Shire of Healesville—*continued*—		
State School, Narbethong	14	11
State School, Toolangi	16	15
State School, Wilks Creek	7	5
Registered School.		
St. Brigid's, Healesville	40	53
Shire of Lilydale—		
High School, Lilydale	..	152
State School, Yarra Park	..	216
Shire of Mulgrave—		
State School, Clayton	173	195
State School, Clayton South	..	94
State School, Glen Waverley	..	99
State School, Mount Waverley	13	68
State School, Mulgrave	19	19
State School, Notting Hill	24	17
Shire of Upper Yarra—		
State School, Don Valley	20	13
State School, Gilderoy	11	15
State School, Millgrove	26	22
State School, Upper Yarra Dam	21	28
State School, Warburton	78	48
State School, Warburton East	32	31
Shire of Werribee—		
State School, Werribee	..	176
Registered School.		
St. Andrew's, Werribee	31	169
Shire of Whittlesea—		
State School, Arthur's Creek	7	7
State School, Bundoora	25	17
State School, Doreen	9	6
State School, Epping	27	27
State School, Hume Vale	11	10
State School, Kinglake West	32	24
State School, Mernda	9	11
State School, Morang South	16	13
State School, Norris Bank	10	7
State School, Thomastown	69	59
State School, Whittlesea	45	54
State School, Yan Yean	8	9
Registered School.		
St. Peter's, Epping	36	42
Region of Gippsland—		
Borough of Wonthaggi—		
State School, Wonthaggi	174	196
Technical and Higher Elementary School, Wonthaggi	152	187
Registered School.		
St. Joseph's, Wonthaggi	92	..
Shire of Alberton—		
State School, Alberton	22	16
State School, Alberton West	13	12
State School, Balloong	7	4
State School, Binginwarri	10	12
State School, Devon North	22	21
State School, Darriman	5	11
State School, Hiawatha	12	13
State School, Jack River	13	14
State School, Port Albert	17	21
State School, Tarraville	3	13
State School, Woodside	19	14
State School, Yarram	94	95
Shire of Korumburra—		
State School, Arawata	20	18
State School, Bena	17	14
State School, Jumbunna	14	12
State School, Kongwak	29	26
State and Higher Elementary School, Korumburra	245	223
State School, Moyarra	7	6
State School, Outtrim	12	8

SCHOOLS EXAMINED—FIRST, SECOND, AND THIRD TERMS, 1952—*continued.*

——	Boys.	Girls.
Region of Gippsland—*continued.*		
Shire of Korumburra—*continued*—		
Registered School.		
St. Joseph's, Korumburra	64	54
Shire of Mirboo—		
State School, Allambee South	12	5
State School, Berry Creek	23	14
State School, Darlimurla	6	6
State School, Mardan	19	14
State School, Mirboo East	5	4
State School, Mirboo South	5	6
Shire of Morwell—		
State School, Boolarra	32	33
State School, Boolarra South	14	10
State School, Budgeree	8	10
State School, Derham's Creek	22	23
State School, Driffield	10	7
State School, Hazelwood South	6	2
State School, Hazelwood North	14	16
State School, Jeeralang	7	7
State School, Jumbuk	7	7
State School, Morwell	307	234
State School, Collins-street, Morwell	142	136
State School, Morwell Bridge	39	41
State School, Morwell North	10	9
State School, Ten Mile Creek	12	15
State School, Yallourn	339	252
State School, Yallourn South	..	24
State School, Yallourn North	..	104
High School, Yallourn	147	..
Technical School, Yallourn	393	..
State School, Yinnar	30	34
State School, Yinnar South	18	14
Registered Schools.		
Sacred Heart, Morwell	140	..
St. Theresa's, Yallourn	127	..
Shire of South Gippsland—		
State School, Agnes	8	5
State School, Dollar	7	5
State School, Fish Creek	54	48
Higher Elementary School, Foster	98	88
State School, Grassy Spur	4	5
State School, Hedley	15	19
State School, Hazel Park	5	4
State School, Mount Best	7	6
State School, Port Franklin	18	9
State School, Port Welshpool	29	14
State School, Stony Creek	16	14
State School, Toora	42	39
State School, Toora North	5	3
State School, Welshpool	17	21
Shire of Traralgon—		
State School, Flynn's Creek Upper	5	5
State School, Traralgon	236	192
State School, Stockdale-road, Traralgon	173	153
High School, Traralgon	..	158
State School, Traralgon South	15	15
State School, Tyers	33	20
Registered School.		
St. Michael's, Traralgon	35	150
Shire of Woorayl—		
State School, Dumbalk	22	29
State School, Dumbalk East	14	14
State School, Dumbalk North	9	11
State School, Inverloch	43	45
State School, Koonwarra	16	25
State School, Koorooman	12	6
State School, Leongatha	..	149
High School, Leongatha	..	158
State School, Mackey	7	3
State School, Meeniyan	57	..
State School, Milford	3	4
State School, Mount Eccles	6	4
State School, Mount Eccles South	2	10
State School, Middle Tarwin	6	6
State School, Nerrina	16	7
State School, Ruby	6	10

SCHOOLS EXAMINED—FIRST, SECOND, AND THIRD TERMS, 1952—*continued.*

——	Boys.	Girls.
Region of East Gippsland—		
Town of Sale—		
St. Mary's, Sale	..	101
Shire of Bairnsdale—		
High School, Bairnsdale	..	253
State School, Paynesville	41	24
Shire of Maffra—		
State School, Heyfield	..	123
Shire of Omeo—		
State School, Benambra	22	21
State School, Ensay	10	13
State School, Ensay North ..	1	5
State School, Omeo	47	50
State School, Reedy Flat	4	5
State School, Swifts Creek.. ..	37	42
State School, The Brothers ..	6	11
Shire of Orbost—		
State School, Bendoc	12	10
State School, Bonang	8	6
State School, Brodribb River ..	9	9
State School, Cabbage Tree Creek ..	22	12
State School, Club Terrace ..	7	9
State School, Cann River	14	14
State School, Delegate River ..	5	..
State School, Genoa	6	5
State School, Lake Tyers	20	14
State School, Lake Tyers Road ..	7	12
State School, Mallacoota	12	10
State School, Marlo	11	11
State School, Noorinbee	3	7
State School, Noorinbee North ..	3	7
State School, Newmerella	23	27
State School, Orbost	144	133
High School, Orbost	50	76
State School, Tubbut	4	2
State School, Wairewa	10	3
Shire of Rosedale—		
St. Joseph's, Cowwarr	18	14
Shire of Tambo—		
State School, Buchan	12	18
State School, Buchan East ..	7	6
State School, Buchan South ..	11	4
State School, Butcher's Ridge ..	5	2
State School, Bruthen	50	58
State School, Gelantipy	5	3
State School, Johnsonville ..	10	17
State School, Lakes Entrance ..	77	74
State School, Metung	10	9
State School, Mossiface	11	11
State School, Murrindal	2	2
State School, Nowa Nowa ..	20	23
State School, Nungurner	6	5
State School, Upper Tambo ..	6	8
State School, Swan Reach ..	14	8
State School, W. Tree	7	2

SCHOOLS EXAMINED—FIRST, SECOND, AND THIRD TERMS, 1952—*continued.*

——	Boys.	Girls.
Region of Goulburn—		
City of Shepparton—		
High School, Shepparton	292	361
Region of Loddon—		
City of Bendigo—		
Girls' School, Bendigo	..	282
Registered School.		
St. Kilian's, Bendigo	142	205
Region of Glenelg—		
Town of Hamilton—		
State School, Hamilton North ..	45	52
Registered School.		
St. Mary's, Hamilton	148	145
Town of Portland—		
State School, Portland	201	193
High School, Portland	165	190
Registered School.		
All Saints', Portland	35	42
Shire of Dundas—		
State School, Buckley Swamp ..	8	8
State School, Bulart	17	19
State School, Cavendish	24	25
State School, Gazette	6	6
State School, Strathkeller	22	19
State School, Wannon	14	14
State School, Yulecart	5	15
Shire of Mount Rouse—		
Convent, Penshurst	28	25
Shire of Wannon—		
State School, Coleraine	91	88

TABLE I.—FOLLOW-UP OF DEFECTS FOUND IN SCHOOL CHILDREN, 1952.

Summary of School Sisters' Reports, 4th February, 1952, to 2nd February, 1953.

Type of School.	First Term.	Second Term.	Third Term.
State—			
Primary	18	17	39
Technical	..	2	..
High	1	1	4
Girls	1	..	1
Registered	5	12	27
Total ..	25	32	71

TABLE II.—FOLLOW-UP OF DEFECTS FOUND IN SCHOOL CHILDREN, 1952.

Summary of School Sisters' Reports, 4th February, 1952, to 2nd February, 1953.

Abbreviations.

N.A.T. .. .. No action taken by parent.
P. .. .. Action promised.
A. .. .. Appointment made for suitable attention.
T. .. .. Actually under treatment.
C. .. .. Treatment complete.

——	Defects other than Dental.						Dental Defects.						
	Notified.	N.A.T.	P.	A.	T.	C.	Notified.	N.A.T.	P.	A.	T.	C.	Children Left School.
1st term ..	1,544	319	333	136	432	292	1,883	360	306	93	589	470	77
2nd term ..	1,882	360	398	176	350	496	2,003	342	308	111	509	694	61
3rd term ..	3,275	914	722	245	620	748	3,819	667	493	229	951	1,351	282
Grand Total	6,701	1,593	1,453	557	1,402	1,536	7,705	1,369	1,107	433	2,049	2,515	420

Owing to an increase in staff during the year the number of schools followed up increased in proportion each term.

TABLE III.—WORK BY BUSH NURSES IN SCHOOLS, 1952.

Bush Nursing Centre.	1951.		1952.	
	Time Spent in Schools.	Number of Schools Visited.	Time Spent in Schools.	Number of Schools Visited.
Apollo Bay	Closed November, 1951	..	..	..
Balmoral	16¾ hrs.	2	6 hrs. 40 mins.	2
Berriwillock	No record received	..	5½ hrs.	1
Buchan	No record received	..	2 hrs. 10 mins.	1
Dargo	1½ hrs.	2	7¼ hrs.	2
Dingee	5¼ hrs.	1	2 hrs.	1
Drysdale	2 hrs.	1	No record received	..
Elmhurst	13 hrs. 50 mins.	1	7½ hrs.	1
Ensay	12½ hrs.	2	10¾ hrs.	2
Glen Wills	6 hrs.	1	Closed	..
Lake Bolac	8 hrs.	4	4 hrs. 50 mins.	2
Lorne	No record received	..	4 hrs. 35 mins.	1
Swift's Creek	No record received	..	12 hrs.	1

TABLE IV.—SPECIAL CASES, 1ST JANUARY TO 31ST DECEMBER, 1952.

Age.			Source of Reference: Education Department.								Reason.															Referred to Psychiatric Clinic.									
	Boys.	Girls.	Attendance Branch.	Inspection Branch.	Psychology Branch.	School.	S.M.O. or Sister.	Hospital or Other Agency.	Parent.	Unspecified References.	Exemption from School.	Truancy.	Irregular Attendance.	Behaviour.	Home Conditions.	Physical Defects.	Mental Defects.	Correspondence.	Remedial Tuition.	Hearing.	Speech.	Change of School.	Retarded.	Report.	Education.	Observatory.	Dr. Johnson.	Travancore.	Carlow House.	S.M.O. or Special Examination.	Psychology Branch.	Hospital, &c.	R.S.L. Child Health Bureau.	S.P.C.C. or C.W.D.	Nurse—Home Visit.
Pre-school	..	5	..	..	..	1	1	1	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	2	1	..	..	..	..	..	2	..	..	1
5	12	7	1	5	1	4	4	2	2	..	..	..	1	2	..	3	2	2	..	..	1	3	..	..	6	2	1	5	..	4	..	2	..	..	5
6	30	21	7	6	8	9	15	3	2	1	1	..	3	13	2	3	3	2	..	..	2	13	6	1	4	5	3	8	..	21	3	2	..	..	16
7	42	32	9	13	12	7	28	5	..	..	1	..	6	13	7	9	4	5	1	..	2	16	3	1	6	6	8	8	..	22	..	3	..	..	28
8	27	28	6	9	8	4	15	7	6	..	1	..	5	10	..	2	2	2	2	1	2	12	8	3	9	1	3	6	..	22	2	3	..	..	18
9	40	34	17	8	11	8	25	2	3	..	..	1	4	10	2	5	4	5	4	..	2	14	9	6	5	7	5	5	1	24	6	4	1	..	23
10	24	26	10	3	9	4	16	4	3	1	..	1	11	6	2	3	..	3	3	..	2	..	9	4	5	3	8	3	..	18	5	1	..	1	10
11	33	24	13	4	8	3	17	7	2	3	..	2	6	9	2	3	..	3	2	1	2	8	4	7	3	2	1	1	1	20	3	3	..	..	22
12	29	37	19	5	5	13	16	5	1	2	2	4	9	10	4	8	..	4	..	..	2	7	2	8	3	3	9	2	2	18	4	1	..	..	23
13	33	50	40	8	3	9	12	3	2	6	15	4	19	9	1	7	1	3	..	..	..	6	1	3	5	2	4	..	5	30	4	5	..	..	31
14	4	8	1	1	1	3	6	..	..	..	3	1	..	6	1	..	..	..	..	..	..	1	..	..	..	4	..	..	..	1	..	1	..	..	6
15	2	2	..	1	..	3	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	1	1	..	..	1	1	..	..	1	..	..	..	..	..
Age not given	10	12	5	3	2	2	8	1	1	..	1	1	3	2	..	2	1	3	..	3	..	2	1	3	..	2	..	..	..	3	2	3	..	..	11
Families	..	23	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	286	286	128	66	68	70	163	40	24	13	24	14	67	93	21	45	17	32	12	5	15	83	44	37	48	39	43	38	9	184	29	30	1	1	194

Total = 572 cases.

TABLE V.—DEFECTS FOUND IN BOYS AND GIRLS ATTENDING VICTORIAN SCHOOLS DURING 1952.

Type of School.	Number Examined.		Vision.				Hearing.		Nose and Throat.				Dental.			
			Notified.		Wearing Glasses.				Notified.		Operations.		Notified.		Fillings.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Primary Schools (Higher, Elementary, and Central included).																
Metropolitan—																
State	21,994	21,921	1,013	1,552	131	191	368	374	2,028	1,461	4,865	4,789	2,996	6,122	2,406	1,577
Percentage	..	..	4·61	7·08	·60	·87	1·67	1·71	9·22	6·66	22·12	21·85	13·62	27·93	10·94	7·19
Children's Homes ..	337	179	45	20	18	9	24	13	22	11	63	29	87	40	16	8
Percentage	..	..	13·35	11·17	5·34	5·03	7·12	7·26	6·50	6·15	18·69	16·20	25·81	22·35	4·75	4·47
Registered	6,663	8,602	435	750	41	105	110	185	475	353	1,874	1,453	1,264	1,560	366	207
Percentage	..	..	6·53	8·72	·62	1·22	1·65	2·15	7·13	4·11	28·13	16·90	18·97	18·14	5·49	2·41
Country—																
State	7,150	6,830	342	367	47	64	111	131	938	140	1,003	1,118	1,568	1,952	354	642
Percentage	..	..	4·78	5·37	·66	·94	1·55	1·92	13·12	2·05	14·03	16·37	21·94	28·58	4·95	9·40
Registered	1,158	1,428	78	90	14	3	30	26	137	122	140	253	268	356	124	104
Percentage	..	..	6·74	6·30	1·21	·21	2·59	1·82	11·83	8·54	12·09	17·72	23·14	24·93	10·71	7·28
Total	37,302	38,960	1,913	2,779	251	372	643	729	3,600	2,087	7,945	7,642	6,183	10,030	3,266	2,538
Percentage ..	..	..	5·13	7·13	·67	·95	1·72	1·87	9·65	5·36	21·30	19·61	16·58	25·74	8·76	6·51
Secondary Schools.																
Metropolitan—																
Technical	3,131	996	147	122	47	32	15	3	47	85	1,001	347	790	380	670	186
Percentage	..	..	4·70	12·25	1·50	3·21	·48	·30	1·50	8·53	31·97	34·84	25·23	38·15	21·40	18·67
High Schools ..	3,058	1,131	179	86	47	35	39	2	162	59	1,090	392	664	273	104	103
Percentage	..	..	5·85	7·60	1·54	3·09	1·28	·18	5·30	5·22	35·64	34·66	21·71	24·14	3·40	1·24
Girls' Schools ..	..	1,854	..	199	..	59	..	33	..	82	..	644	..	469	..	106
Percentage	..	..	..	10·73	..	3·18	..	1·78	..	4·42	..	34·74	..	25·30	..	5·72
Country—																
Technical	575	187	31	10	2	4	38	13	109	4	195	20	90	69	88	85
Percentage	..	..	5·39	5·35	·35	2·14	6·61	6·95	18·96	2·14	33·91	10·70	15·65	36·90	15·30	45·45
High Schools ..	1,186	1,503	69	77	10	22	16	29	153	126	311	403	238	353	188	276
Percentage	..	..	5·82	5·12	·84	1·46	1·35	1·93	12·90	8·38	26·22	26·81	20·07	23·49	15·85	18·36
Total	7,950	5,671	426	494	106	152	108	80	471	356	2,597	1,806	1,782	1,544	1,050	756
Percentage	..	..	5·36	8·71	1·33	2·68	1·36	1·41	5·93	6·28	32·67	31·84	22·42	26·87	13·21	13·33
Grand Total ..	45,252	44,631	2,339	3,273	357	524	751	809	4,071	2,443	10,542	9,448	7,965	11,574	4,316	3,294
Percentage ..	..		5·17	7·33	·79	1·17	1·66	1·81	9·00	5·47	23·30	21·16	17·60	25·93	9·54	7·15

(*Expressed as Percentages of the Numbers Examined*)—continued.

Type of School.	Hair.		Heart.		Hernia.		Skin.		Feet.		Nutrition.		Other Defects.		Free from Defects.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Primary Schools (Higher, Elementary, and Central included).																
Metropolitan—																
State	52	435	45	81	70	12	244	306	654	541	57	191	242	159	9,762	8,189
Percentage	·24	1·98	·20	·36	·32	·05	1·11	1·40	2·97	2·47	·26	·87	1·10	·73	44·38	37·35
Children's Homes ..	19	12	6	6	..	..	6	2	20	14	..	2	1	3	102	59
Percentage	5·64	6·70	1·78	3·35	..	..	1·78	1·12	5·93	7·82	..	1·12	·30	1·68	30·26	32·96
Registered	56	159	17	14	21	3	71	163	236	198	18	125	77	75	2,765	3,142
Percentage	·84	1·85	·26	·16	·32	·03	1·07	1·90	3·54	2·30	·27	1·45	1·16	·87	41·50	36·54
Country—																
State	35	114	18	43	19	7	109	142	218	165	28	77	128	149	2,612	2,775
Percentage	·49	1·67	·25	·63	·27	·10	1·52	2·08	3·05	2·42	·39	1·13	1·79	2·18	36·54	40·63
Registered	14	55	5	4	4	..	25	16	28	53	13	·16	14	12	788	656
Percentage	1·21	3·85	·43	·28	·35	..	2·16	1·12	2·42	3·71	1·12	1·12	1·21	·84	68·05	45·94
Total	176	775	91	148	114	22	455	629	1,156	971	116	411	462	398	16,029	14,821
Percentage ..	·47	1·99	·24	·38	·31	·06	1·22	1·61	3·10	2·49	·31	1·05	1·24	1·02	42·97	38·03
Secondary Schools.																
Metropolitan—																
Technical	1	9	4	24	4	..	12	30	120	48	6	..	49	2	1,133	317
Percentage	·03	·90	·13	2·41	·13	..	·38	3·01	3·83	4·82	·19	..	1·57	·20	36·19	31·83
High Schools ..	14	2	4	6	1	..	36	3	131	28	8	..	31	4	1,394	318
Percentage	·07	·35	·20	·09	..	..	1·18	·27	4·28	2·48	·26	..	1·01	·35	45·58	28·12
Girls' Schools ..	..	14	..	6	..	3	..	26	..	73	..	18	..	10	..	592
Percentage	..	·75	..	·32	..	·16	..	1·40	..	3·94	..	·97	..	·54	..	31·93
Country—																
Technical	..	..	2	3	..	..	5	2	16	1	..	2	2	2	183	25
Percentage	..	..	·35	1·60	..	..	·87	1·07	2·78	·53	..	1·07	·35	1·07	31·82	13·37
High Schools ..	8	10	1	12	..	..	15	11	60	63	2	21	14	42	453	480
Percentage	·67	·66	·08	·80	..	..	1·26	·73	5·06	4·19	·17	1·40	1·18	2·79	38·20	31·93
Total	23	35	11	51	5	3	68	72	327	214	16	41	96	60	3,163	1,732
Percentage ..	·29	·61	·14	·90	·06	·05	·86	1·27	4·11	3·77	·20	·72	1·21	1·06	39·79	30·54
Grand Total ..	199	810	102	199	119	25	253	701	1,483	1,185	132	452	558	458	19,192	16,553
Percentage ..	·44	1·81	·23	·45	·26	·06	1·16	1·57	3·28	2·65	·29	1·01	1·23	1·03	42·41	37·08

TABLE VI.—DEFECTS FOUND IN SCHOOL CHILDREN BY SCHOOL SISTERS DURING 1952.

State Schools—Defects.

Municipality.	Attendance.	Examinations.	Hair.		Impetigo.	Scabies.	Dirty.	Ringworm.	Other Skin Conditions.
			Number of Cases.	Percentage Incidence.					
Box Hill ..	..	..	..	..	..	..	..	..	..
Braybrook	3,996	6,896	114	1·65	26	..	1	6	37
Brunswick	4,242	11,916	131	1·08	48	14	26	7	34
Camberwell	1,889	2,478	2	·08	3	..	..	1	5
Caulfield ..	943	943	4	·42	1	..	..	..	..
Coburg ..	6,725	18,079	66	·36	3	..	..	7	46
Collingwood	2,530	7,470	265	3·54	21	2	21	7	23
Essendon ..	5,120	13,410	64	·47	9	4	3	14	110
Fitzroy ..	2,183	6,246	410	6·56	35	2	13	1	125
Footscray	7,345	19,695	127	·64	8	3	18	10	90
Hawthorn	2,033	3,233	29	·89	2	1	..	2	6
Heidelberg	3,720	7,680	123	1·60	17	..	..	11	20
Kew ..	536	536	1	·18	..	..	..	..	..
Malvern ..	1,880	2,230	4	·17	2	..	..	..	2
Melbourne	5,617	16,691	512	3·06	88	3	34	14	26
Moorabbin	1,951	3,499	82	2·34	13	1	1	2	8
Northcote	3,420	7,790	67	·86	23	..	3	3	4
Oakleigh ..	2,345	6,483	58	·89	8	1	1	3	34
Port Melbourne	1,230	3,240	92	2·83	..	..	8	2	12
Prahran ..	3,120	7,420	170	2·29	10	4	11	5	16
Preston ..	5,870	10,270	101	·98	21	1	6	15	78
Richmond ..	2,063	6,579	124	1·88	..	..	8	3	16
Sandringham	200	200	1	·5	..	..	..	..	..
St. Kilda ..	2,220	5,760	25	·43	9	..	..	1	1
South Melbourne	3,520	8,490	80	·94	..	..	5	..	16
Williamstown	2,360	6,660	61	·91	15	..	9	4	7
Beach Schools	3,784	5,324	57	1·07	4	..	..	..	4
Country Schools	11,064	18,316	149	·81	35	10	3	5	79
Ballarat ..	4,103	4,103	59	1·43	7	..	4	..	..
Geelong ..	5,661	8,870	139	1·56	89	..	2	11	16
Bendigo ..	4,234	12,198	240	1·96	83	7	23	3	13
Shepparton	2,288	3,031	40	1·31	8	..	..	4	3
Total	108,199	235,736	3,397	..	588	53	201	141	831
Percentage ..	..	..	..	1·01	·24	·02	·08	·05	·35

TABLE VI.—DEFECTS FOUND IN SCHOOL CHILDREN BY SCHOOL SISTERS DURING 1952—*continued.*

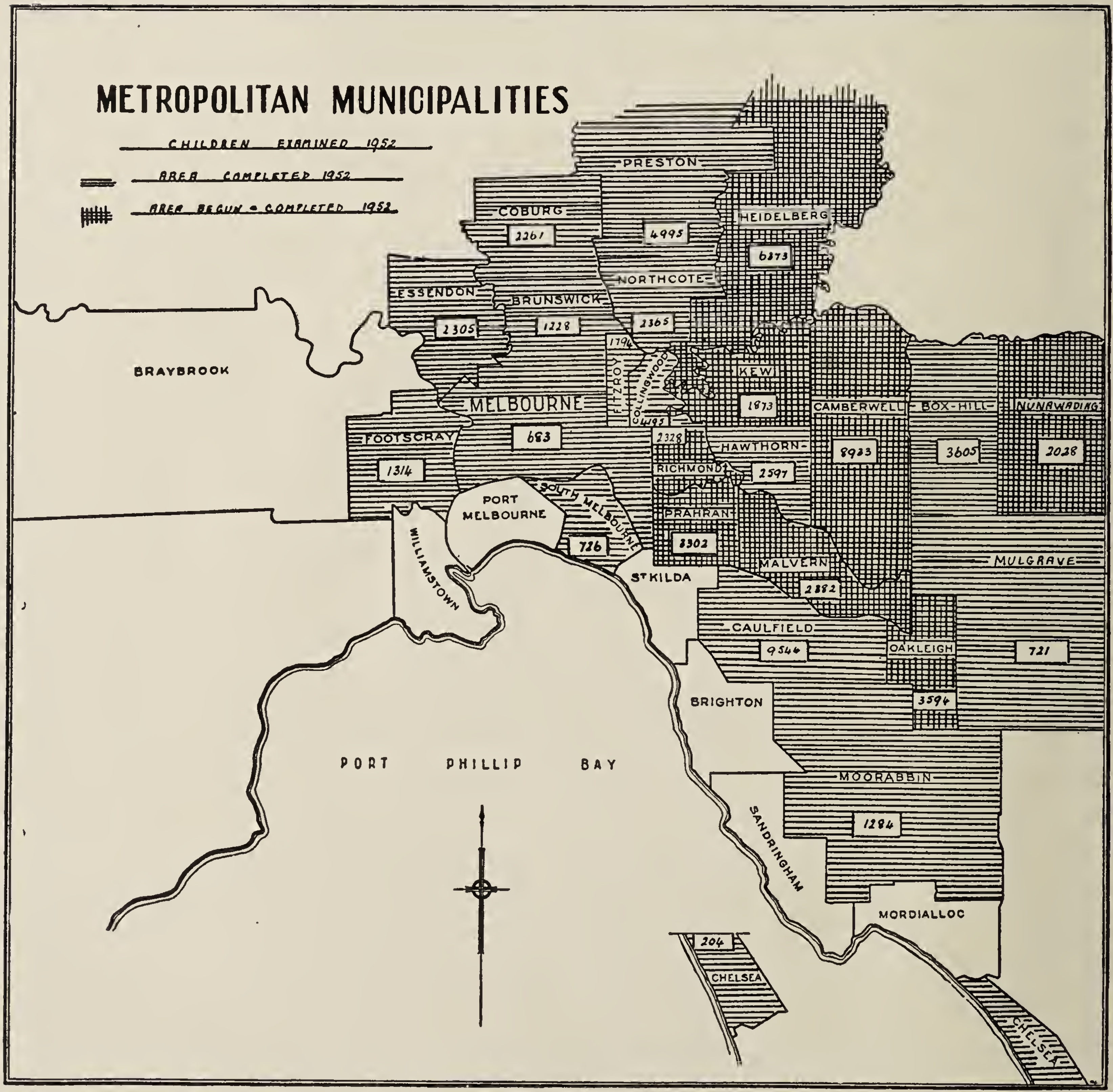
Registered Schools—Defects.

Municipality.	Attendance.	Examinations.	Hair.		Impetigo.	Scabies.	Dirty.	Ringworm.	Other Skin Conditions.
			Number of Cases.	Percentage Incidence.					
Box Hill	150	150	..	..	1	..	..	..	3
Braybrook	868	1,568	77	4·91	4	..	..	5	2
Brunswick	1,950	5,850	77	1·31	50	1	6	2	15
Camberwell	300	300	6	2·0	..	..	..	..	..
Caulfield	..	..	..	..	..	..	..	..	..
Coburg	1,813	4,979	38	·76	7	..	..	6	34
Collingwood	1,020	3,380	177	5·28	10	2	15	7	9
Essendon	1,732	4,526	48	1·06	3	1	..	4	94
Fitzroy	950	3,800	341	8·97	31	5	16	2	34
Footscray	2,037	5,944	85	1·42	3	1	..	..	25
Hawthorn	211	211	2	·94	2	..	..	..	..
Heidelberg	1,973	4,183	47	1·12	32	1	1	1	8
Kew	..	..	..	..	..	..	..	..	..
Malvern	..	..	..	..	..	..	..	..	..
Melbourne	2,915	7,895	304	3·85	29	2	3	2	15
Moorabbin	..	..	..	..	..	..	..	..	..
Northcote	1,050	3,150	44	1·39	4	..	..	..	2
Oakleigh	671	671	13	1·92	..	1	..	1	..
Port Melbourne	400	1,200	35	2·91	..	1	4	..	..
Prahran	681	1,362	29	2·12	1	..	1	1	1
Preston	2,060	4,920	67	1·36	18	..	2	3	41
Richmond..	962	2,414	51	2·11	..	..	2	..	3
Sandringham	..	..	..	..	..	..	..	..	..
St. Kilda	3,130	8,140	56	·68	16	..	..	1	1
South Melbourne	1,205	2,885	104	3·60	..	5	1	4	5
Williamstown	958	2,874	46	1·60	9	1	..	..	7
Beach Schools	810	2,810	24	·85	8	..	..	..	5
Country Schools	1,004	1,617	90	5·56	5	1	..	1	8
Ballarat	1,145	1,295	22	1·69	..	..	..	..	..
Geelong	1,051	1,751	71	4·05	23	2	2	..	4
Bendigo	872	1,924	52	2·10	5	..	..	3	7
Shepparton	300	300	10	3·33	2	..	..	..	..
Total	32,218	80,099	1,916	..	263	24	53	43	323
Percentage ..	..	..	..	2·39	·32	·02	·06	·05	·40

TABLE VI.—DEFECTS FOUND IN SCHOOL CHILDREN BY SCHOOL SISTERS DURING 1952—*continued.*

Total Defects.

Municipality.	Attendance.	Examinations.	Hair.		Impetigo.	Scabies.	Dirty.	Ringworm.	Other Skin Conditions.
			Number of Cases.	Percentage Incidence.					
Box Hill	150	150	. .	. .	1	. .	. .	. .	3
Braybrook	4,864	8,464	191	2·25	30	. .	1	11	39
Brunswick	6,192	17,766	208	1·17	98	15	32	9	49
Camberwell	2,189	2,778	8	·28	3	. .	. .	1	5
Caulfield	943	943	4	·42	1	. .	. .	. .	. .
Coburg	8,538	23,058	104	·46	10	. .	. .	13	80
Collingwood	3,550	10,850	442	4·07	31	4	36	14	32
Essendon	6,852	17,936	112	·62	12	5	3	18	204
Fitzroy	3,133	10,046	751	7·47	66	7	29	3	159
Footscray	9,382	25,639	212	·82	11	4	18	10	115
Hawthorn	2,244	3,444	31	·90	4	1	. .	2	6
Heidelberg	5,693	11,863	170	1·43	49	1	1	12	28
Kew	536	536	1	·18	. .	. .	. .	. .	. .
Malvern	1,880	2,230	4	·17	2	. .	. .	. .	2
Melbourne	8,532	24,586	816	3·31	117	5	37	16	41
Moorabbin	1,958	3,499	82	2·34	13	1	1	2	8
Northcote	4,470	10,940	111	1·01	27	. .	3	3	6
Oakleigh	3,016	7,154	71	·99	8	2	2	4	34
Port Melbourne	1,630	4,440	127	2·86	. .	1	12	2	12
Prahran	3,801	8,782	199	2·26	11	4	12	6	17
Preston	7,930	15,190	168	1·10	39	1	8	18	119
Richmond.	3,025	8,993	175	1·94	. .	. .	10	3	19
Sandringham	200	200	1	·5	. .	. .	. .	. .	. .
St. Kilda	5,350	13,900	81	·58	25	. .	. .	2	2
South Melbourne	4,725	11,375	184	1·61	. .	5	6	4	21
Williamstown	3,318	9,534	107	1·12	24	1	9	4	14
Beach Schools	4,594	8,134	81	·99	12	. .	. .	. .	9
Country Schools	12,068	19,933	239	1·19	40	11	3	6	87
Ballarat	5,248	5,398	81	1·50	7	. .	4	. .	. .
Geelong	6,712	10,621	210	1·97	112	2	4	11	20
Bendigo	5,106	14,122	292	2·06	88	7	23	6	20
Shepparton	2,588	3,331	50	1·50	10	. .	. .	4	3
Total	140,417	315,835	5,313	. .	851	77	254	184	1,154
Percentage . .	. .	. .	. .	1·68	·26	·02	·08	·05	·36



METROPOLITAN MUNICIPALITIES

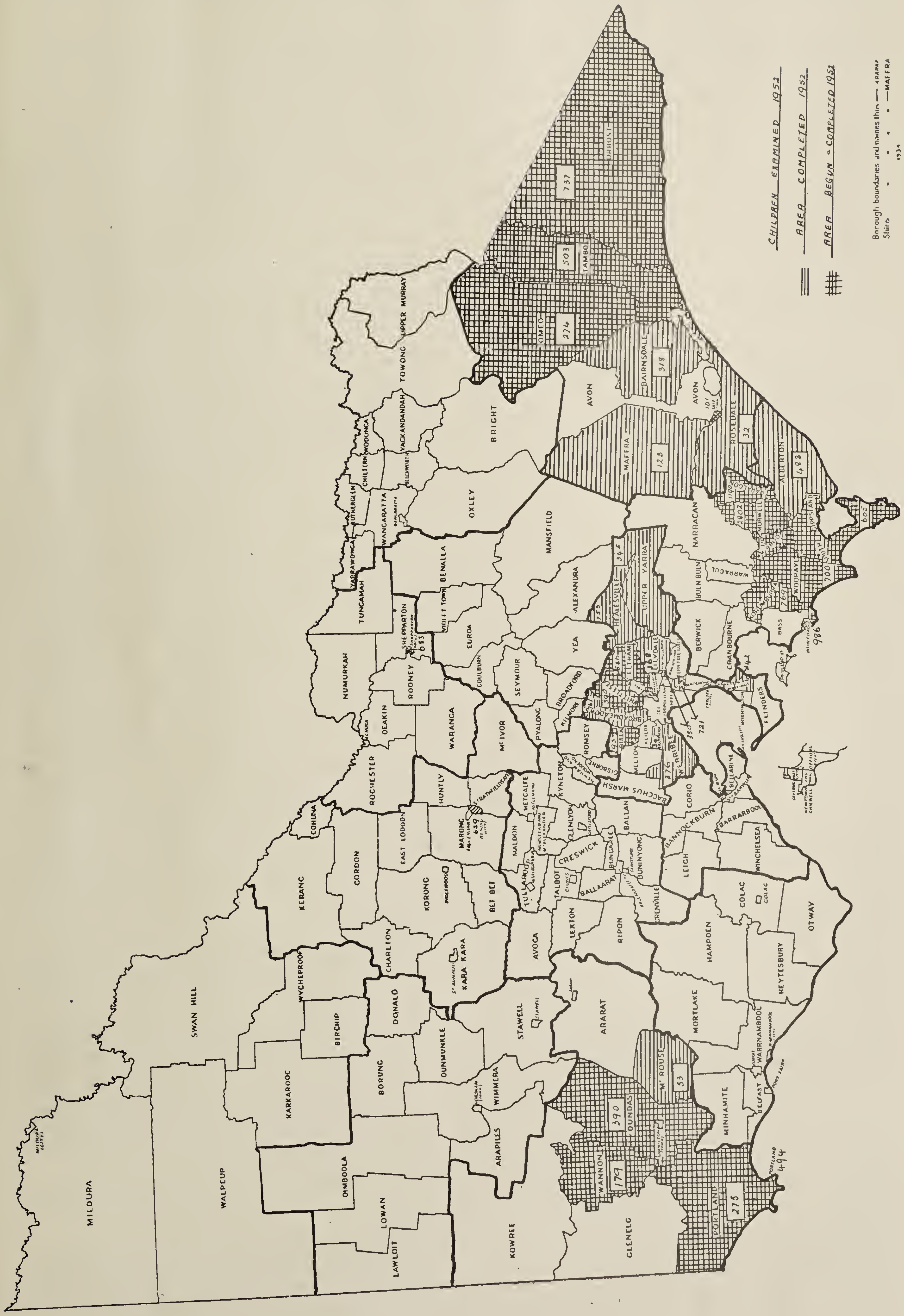

CHILDREN EXAMINED 1952
AREA COMPLETED 1952
AREA BEGUN & COMPLETED 1952
Borough boundaries and names thus — ARARAT
Shire • • • • —MAFFRA
1934
MILDURA
WALPEUP
SWAN HILL
KARKAROOC
BIRCHIP
WYCHEPROOF
KERANG
COHUNA
GORDON
DIMBOOLA
LOWAN
LAWLOIT
KOWREE
ARAPILES
WIMMERA
BORUNG
DUNMUNKLE
DONALDO
CHARLTON
KARA KARA
KORONG
EAST LODDON
ROCHESTER
ECHUCA
DEAKIN
NUMURKAH
TUNGAMAH
YARRAWONGA
RUTHERGLEN
WANGARATTA
CHILTERN
WODONGA
YACKANDANDAH
BEECHWORTH
TOWONG
UPPER MURRAY
BRIGHT
OXLEY
BENALLA
VIOLET TOWN
SHEPPARTON
653
ROONEY
EURDA
WARANGA
HUNTLY
MARONG
629
STRATHFIELDSAYE
BET BET
AVOCA
STAWELL
ARARAT
GLENELG
WANNON
179
DUNDAS
390
PORTLAND
275
494
M^c ROUSE
53
MINHAMITE
BELFAST
WARRNAMBOOL
PORT FAIRY
MORTLAKE
HEYTESBURY
HAMPDEN
RIPON
LEXTON
TALBOT
TULLAROOP
MALDON
METCALFE
GLENLYON
CRESWICK
BALLAARAT
BUNGAREE
BUNINYONG
GRENVILLE
LEIGH
COLAC
OTWAY
WINCHELSEA
BARRABOOL
BANNOCKBURN
CORIO
BELLARINE
BALLAN
BACCHUS MARSH
MELTON
WERRIBEE
376
KYNETON
GISBORNE
ROMSEY
M^c IVOR
GOULBURN
SEYMOUR
PYALONG
BROADFORD
KILMORE
YEA
ALEXANDRA
MANSFIELD
HEALESVILLE
346
UPPER YARRA
ELTHAM
LILYDALE
BERWICK
CRANBOURNE
FLINDERS
MORNINGTON
721
330
42
BASS
986
WONTHAGGI
WOORAYL
700
769
KORUMBURRA
WARRAGUL
BULN BULN
NARRACAN
MORWELL
2402
1190
MIRBOO
ALBERTON
483
605
ROSEDALE
32
MAFFRA
128
AVON
101
BAIRNSDALE
318
OMEO
274
TAMBO
503
ORBOST
737

TABLE VII.—SICK LEAVE IN MEN AND WOMEN TEACHERS—1ST JANUARY, 1952, TO 31ST DECEMBER, 1952.

Number examined : Men (151), Women (178).

Number of Consultations : Men (221), Women (207).

Defects.	Number of Men.	Number of Women.	Percentage—	
			Men.	Women.
Respiratory disease—				
General	12	22	7·9	12·3
Tuberculosis ..	7	5	4·6	2·8
Circulatory disease ..	33	27	21·8	15·1
Gastro-intestinal ..	12	11	7·9	6·1
Mental disease—				
Psychosis	3	8	1·9	4·4
Psychoneurosis ..	42	32	27·8	18·0
Malignant growths and tumours	7	10	4·6	5·6
Urinary diseases ..	6	5	3·9	2·8
Anaemia and general health	8	16	5·2	9·0
Ear, nose, and throat	6	6	3·9	3·3
Eye	4	3	2·6	1·6
*Infectious diseases ..	4	2	2·6	1·1
Accidents	13	7	8·6	3·9
Thyroid diseases ..	3	6	1·9	3·3
Rheumatism and bone diseases	8	12	5·2	6·1
Skin	2	3	1·3	1·6
Diabetes	..	3	..	1·6
Operations—				
Appendix	1	7	·6	3·9
Ear, nose, and throat	..	7	..	3·9
Gynaecological ..	..	14	..	7·8
Others	18	20	12·6	11·2
Superannuation—				
New cases ..	16	8	10·5	4·4
Old cases	7	15	4·6	8·4

* TABLE VIII.—INFECTIOUS DISEASES.

The following were on sick leave but were not examined by the School Medical Officer :—

Disease.	Men.	Women.
Morbilli	7	18
Rubella	24	150
Parotitis	34	87
Varicella	22	32
Pertussis	1	1
Scarlet Fever	2	3
Poliomyelitis	1	1
Influenza	128	170
Hepatitis	1	1
Impetigo	1	..

Total—Men 221, women 463.

TABLE IX.—DEFECTS IN MEN AND WOMEN TEACHERS EXAMINED, 1ST JANUARY, 1952, TO 31ST DECEMBER, 1952.

Number of teachers : Men (1,167), Women (1,276).

Number of examinations : Men (1,296), Women (1,330).

Defects.	Number of Men.	Number of Women.	Percentage—	
			Men.	Women.
*Rejected	53	54	4·5	4·2
†Deferred	84	154	7·2	12·0
Hearing	35	19	3·0	1·4
Vision—				
Defect notified ..	58	38	4·9	2·9
Wearing glasses ..	309	266	26·4	20·8
Teeth—				
Artificial dentures ..	355	255	30·4	19·9
Carious	37	48	3·1	3·6
Nose and throat—				
Defect notified ..	10	5	·8	·39
Previous operation ..	520	574	44·5	45·0
General health, and anaemia	109	65	9·2	5·0
Thyroid	1	15	·009	1·1
Diabetes	..	3	..	·2
†Menstrual disorders ..	..	24	..	1·9
Hernia and varicose veins	118	9	10·1	·7
‡Physical deformity and posture	..	33	..	2·5
Other conditions ..	65	70	5·5	5·5
Appendectomy ..	130	142	11·1	11·13

* *Rejected.*

The 54 rejected comprise—

(1) 19 permanently ineligible for superannuation benefits ;

(2) 14 considered unsuitable for teaching—of this number 6 had not commenced duty, while 8 others had done some or all of their training but were considered unfit to continue because of temperamental unsuitability, &c. ;

(3) 21 refused for extra units of superannuation.

† *Deferred.*

One hundred and fifty-two were not accepted for superannuation benefits but were deferred to a later date for one or other of the following reasons :—

(1) Those requiring medical or surgical treatment and those under treatment when examined.

(2) Those deferred until receipt of satisfactory certificates from dentists, oculists, aurists, &c.

(3) Those requiring further periods of observation and chest X-ray examination, or investigation by the Tuberculosis Bureau.

(4) Those whom it was considered required a period of observation for adjustment to teaching as an occupation, or to teaching in country areas involving, as it does, living away from home.

† *Menstrual Disorders.*

Included are those actually receiving treatment at the time of examination and those requiring investigation and treatment for dysmenorrhoea causing frequent loss of odd days of working time.

‡ *Physical Deformities, Postures.*

Included are congenital deformities, disabilities following poliomyelitis, very poor postures requiring treatment, and foot deformities causing inconvenience to the individual concerned.

TABLE X.—MEN TEACHERS EXAMINED—1ST JANUARY, 1952, TO 31ST DECEMBER, 1952, FOR "LOST UNITS" OF SUPERANNUATION.

Number of Candidates	234	Percentage.
Number of Examinations	240	
Rejected	40	17·0
Deferred	2	0·8
Hearing	13	5·5
Vision—		
Defects notified	12	5·1
Wearing glasses	118	50·4
Teeth—		
Carious	1	0·4
Artificial dentures	175	74·7
Nose and throat—		
Defects notified	..	..
Previous operation	49	20·9
General health	38	16·2
Anaemia	..	..
Thyroid	..	..
Hernia and varicose veins	46	19·6
Appendix operation	35	14·9
Other defects	20	8·5
X-ray	10	4·2

M. LANE, M.B., B.S.,
Chief Medical Inspector of Schools.

REPORT OF THE DENTAL DIVISION, 1st JULY, 1952, TO 30th JUNE, 1953.

The development and expansion of the Dental Division continued during the year, the principal developments being the opening of a second dental centre in the metropolitan area, a further increase in the number of mobile dental units, and the establishment of a dental store to supply centres and mobile units with their working requirements of dental and general supplies.

DENTAL CENTRES.

Central School Dental Centre, Melbourne.

Superintendent, Mr. A. W. Buchanan, B.D.Sc., L.D.S.

Children attending State and Catholic primary schools in the inner industrial suburbs around the city proper continued to receive dental treatment at this centre. These children are brought from their schools by a contract bus service and returned at the end of the morning and afternoon sessions. In addition, many children brought by their parents for return visits or emergency treatments receive attention.

With the opening of the new centre at North Fitzroy, a number of schools to the north of the city were transferred from the Central School Dental Centre list, and this enabled other schools in the vicinity to be added.

During the year 1952–53, 14,461 children, in 22,485 attendances, received full dental treatment at this centre.

North Fitzroy Dental Centre.

Sperintendent, Mr. B. T. Bell, B.D.Sc., L.D.S.

Preparatory work for the first stage of the conversion of the property, which had been a private home, to a dental centre was completed in March, 1953, and the centre commenced operations with three dental surgeries equipped.

This centre took over certain schools formerly based upon the Central School Dental Centre, and also a number of additional schools in the district.

In the three months, April–June 1953, 924 children, in 1,840 attendances, were treated.

Mobile Dental Service.

Superintendent, Mr. D. J. A. Webb, B.D.Sc., L.D.S.

Six dental vans were in operation throughout the year, which enabled treatment to be resumed in practically all the country districts formerly undertaken. Due to the accumulation of dental treatment needs during the period when the mobile units were not operating, progress on the country itineraries has been slow. This has been intensified in some areas by the considerable increase in population that has occurred, principally through extensive local development, e.g., Latrobe Valley, and generally through the migration scheme.

Two new semi-trailer mobile units, each having two dental surgeries, were received during the year. The first was placed in Gippsland in November 1952, and the second commenced in the Mallee in June 1953. Other units of this type are on order and will enable further extension of the mobile service to country districts to be effected. These units will operate at larger schools in country towns, and at Group and Consolidated Schools, while the dental vans attend to children at the smaller rural schools.

The increase in the fleet of mobile units has made it possible to extend the area included in the Mallee itinerary, and preliminary investigations have been made with a view to extension of the service into parts of the Western District, an area not formerly visited by the School Dental Service.

In planning the resumption and extension of country work, some measure of priority has been given to consolidated schools and soldier settlement areas which are in the main, rural areas remote from any existing dental facilities.

During the year 1952–53, 252 schools were visited and all children whose parents consented to treatment by the school dental officers received all necessary dental attention.

The acceptance rate continues in the vicinity of 80 per cent. In more remote areas, it is commonly up to 100 per cent.

Institutional Treatment.

Officer in Charge, Mrs. A. M. L. Craig, B.D.Sc., L.D.S.

An additional dental officer was allotted to the dental care of children in homes, orphanages and other institutions, many of which are visited by dental officers with portable equipment, while others are visited by dental vans during the school vacation period.

Under this section of the service, treatment was afforded to special schools for physically handicapped and mentally retarded children. Twenty-six institutions were visited, and 2,205 children afforded treatment during the year.

OTHER ACTIVITIES.

Pre-School Children.

Support for the pre-school activities of the Melbourne Dental Hospital has been continued by means of a grant of £3,500, which has contributed to the cost of running the hospital's dental caravan in providing dental care at kindergartens and pre-school centres in the metropolitan area, and enabled staff to be provided for the Pre-School Dental Clinic at the South Melbourne Infant Welfare Centre.

A dental officer was made available to the Melbourne City Council to enable its three pre-school clinics to be continued during the absence of the regular dentist on six months' leave.

Lord Mayor's Holiday Camp for Country Children.

Two dental officers and attendants were made available to the Lord Mayor's Camps at Portsea for each of the 1952–53 series of 10 camps, where they worked in the dental clinic under the general control of the Camp Dental Organizer, Dr. R. G. Shannon. Their attendance enabled a valuable service to be given to children attending the camps, many of whom came from rural communities in all parts of the State.

STAFF.

The number of dental officers increased during the year from 22 to 30—26 males and 4 females. Of this number, 15 are permanent officers (including 2 made permanent during the year), and 15 temporary. The strength of dental attendants increased from 21 to 28.

Other appointments made were a storekeeper to take charge of the dental store, and a motor driver for the semi-trailer units.

GENERAL.

The year 1952–53 has seen a steady increase in the dental service afforded to the children of the State, through increases in all sections of the division—the metropolitan dental centres, the mobile dental service to country districts, and the staff allocated. to instituions and special groups of children.

Statistics for the calendar year, 1952, are appended.

N. H. ANDREWS, D.D.Sc., L.D.S.,
Deputy Director of Child Health (Dental).

DENTAL TREATMENT PERFORMED, JANUARY–DECEMBER, 1952.

—	Number of Children.	Number of Attendances.	Deciduous Teeth.		Permanent Teeth.		General Anaesthetics.	Dressings Temporary Fillings.	Regulation Cases.	Other Operations.
			Extractions.	Fillings.	Extractions.	Fillings.				
Metropolitan—										
Central School Dental Centre ..	15,977	24,317	11,822	4,060	3,574	16,489	844	2,565	1,056	4,466
Institutions	1,193	1,949	1,136	171	281	1,498	..	293	26	708
Country—										
Mobile Dental Units	7,600	10,283	8,210	1,272	2,443	7,857	4	1,220	9	1,594
Total	24,770	36,549	21,168	5,503	6,298	25,844	848	4,078	1,091	6,768

ANNUAL REPORT OF THE INDUSTRIAL HYGIENE DIVISION, JULY 1st, 1952, TO JUNE 30th, 1953.

STAFF.

The staff during this period consisted of—

Chief Industrial Hygiene Officer	1
Medical Officers, Industrial Hygiene	2
Scientific Officers (chemists) for most of year	3
Industrial Health Inspectors	4
Laboratory Technician	1
Typiste and filing clerks	2

Dr. S. B. Sutton who had been seconded to this Division from the General Health Branch, having resigned from the Department, Dr. D. L. G. Thomas was appointed as Medical Officer, Industrial Hygiene, as from 1st July, 1952.

INSPECTIONS.

(Statistics in this report refer to the period January, 1952, to December, 1952.)

The following is a summary of the work done during this period :—

Inspections by inspectorial, scientific, and medical staff	1,553
Tests done in connexion with these inspections	1,152

The matters investigated included, air contamination by siliceous dusts, asbestos dust, dusts containing lead and its compounds ; toxic gases such as carbon monoxide, hydrogen cyanide, oxides of nitrogen, sulphuretted hydrogen, sulphur dioxide, &c. ; toxic vapours such as benzene, cadmium fumes, trichlorethylene, chromic acid mist, radiations, air temperatures and numerous miscellaneous hazards.

The following table summarizes these inspections.

Inspections and Tests.

Hazard.	Inspections.		Tests.	
Dust—				
Asbestos	20		5	
Lead	169		168	
Silica	184		512	
Other—organic and inorganic	179		304	
		552		989*
Fumes—				
Chromic acid	5		..	
Cadmium	2		..	
		7		
Gases—				
Carbon monoxide	10		36	
Cyanide	6		4	
Oxides of nitrogen	18		9	
Sulphuretted hydrogen	6		..	
Sulphur dioxide	2		..	
Other gases	7		..	
		49		49
Vapour—				
Benzene	353		104	
Other aromatic	359		2	
Non-aromatic	6		2	
Trichlorethylene	2		..	
Other vapours	14		..	
		734		108
Radiations—				
X-ray, radio active	2		..	
Effecting eyes	41		..	
		43		
Temperature	2		6	
Miscellaneous	40		..	
No hazard	126		..	
Total		1,553		1,152

* Includes 29 impinger tests.

WORK OF THE INDUSTRIAL HYGIENE LABORATORY.

This included examination of samples secured by the inspectorial staff for analysis, dust counts, &c., in connexion with investigations of conditions of work, various tests in connexion with the examination of individuals in industries, and investigations in connexion with improvement in analytical methods. The following table shows the amount of work done :—

Stipple cell counts	1,049
Ratios of large to small lymphoid cells	243
Red cell counts	186
White cell counts	168
Determination of percentage of haemoglobin	186
Determination of mean corpuscular haemoglobin	186
Differential white cell counts	170
	2,188
Dust counts	375
Preparation of slides for asbestos bodies	4

CHEMICAL WORK.

Determination of lead in urine	261
Determination of porphyrin in urine	261
Determination of lead in faeces	10
Determination of lead in blood	55
Determination of lead in organs	4
Determination of lead in air	173
Determination of lead in dusts or water	10
Determination of lead in sweat	5
Determination of ratio of inorganic to organic sulphates in urine	4
Determination of total sulphates in urine	8
Determination of zinc in urine	2
Determination of trichlorethylene in air	4
Determination of petroleum vapours in air	2
	799
Grand Total	3,366

In addition to the above, Health Department and other analysts at the State Laboratories carried out 117 analyses for free silica in dust, benzene in solvents, adhesives, &c. ; arsenic in urine and hair ; mercury in urine ; and of other miscellaneous substances.

Over 3,600 tests were carried out in laboratory and field.

OCCUPATIONAL DISEASES.

The occupational diseases reported, or discovered as a result of the activities of this Division for the period January–December, 1952, were as follows :—

Lead poisoning—	
Industrial	43
Other	5
Pneumoconiosis—	
Silicosis, silicosis plus tuberculosis, asbestosis	69
Dermatitis	10
Benzene poisoning	1
Poisoning by other solvents (petroleum)	1
Poisoning by ether	1
Poisoning by formalin	1

Examinations of Individuals.

The number of individuals examined by the Industrial Hygiene Division personally in connection with occupational diseases totalled 432.

MEDICAL EXAMINATIONS.

Lead Trades.

Under the Dangerous Trades (Medical Examination) Regulations 1947—1,912 reports concerning 644 different individuals working in 95 factories were received. There were 43 cases of industrial lead poisoning reported during the year, the majority of them not needing hospitalization.

The following table summarizes the results of these examinations.

MEDICAL EXAMINATIONS OF WORKERS IN CERTAIN LEAD OCCUPATIONS.

Industry or Trade Process.	Number of Factories or Works.	Total Number of Individuals Examined.	Total Number of Medical Examinations Carried Out.	Total Number of Individuals Notified as Lead-poisoned.
Manufacturer of compounds of lead . .	4	61	183	12
Lead smelting . .	6	22	126	4
Manufacturer of lead arsenate	3	4	15	2
Manufacturer of accumulators . .	29	229	1,032	24
Manufacturer of paints containing lead . .	28	133	236	. .
Rubber works . .	3	1	3	. .
Vitreous enamelling works	1	31	97	. .
Lead wiping, grinding, buffing (motor body)	10	129	175	. .
Production of tetra-ethyl lead petrol . .	4	15	18	. .
Miscellaneous lead processes	7	19	27	1 (electric cable and wire manufacturer)
Total . .	95	644	1,912	43

LEAD TRADES.

SURVEY OF CONDITIONS.

Inspection showed that whilst some factories have reduced their lead in air concentrations, the current year overall picture is not good. Out of fifteen factories inspected, cases of lead poisoning were discovered in nine. However, there is reason to believe that the next year will bring some improvement. This supposition is based on the fact that ventilation, and other improvements have been put in hand or are contemplated in those factories where concentrations were found to be high.

The maximum concentration permitted is 0·15 milligrams of lead per cubic metre of air.

PAINT INDUSTRY.

In the paint manufacturing industry, lead in air concentrations have dropped to almost zero.

Three main reasons for this are—

(i) use of titanium oxide in place of white lead;
(ii) use of lead in oil in place of dry white lead;
(iii) installation of or improvement in ventilation at mixing stations and changed methods of handling white lead in factories.

There were no cases of lead poisoning in the paint manufacturing industry in the current year.

Benzene.

Benzene is still being used as the main ingredient in paint and varnish removers and strippers as no other solvent has been found to be as effective.

In boot and shoe repairing shops, a benzene solution is practically universally used, but in most of these cases they are one man businesses, and the substance is used sparingly and intermittently.

In boot and shoe manufacturing works, benzene solutions of rubber have almost disappeared for general adhesive work, but are used in several for special work which is of short duration. Petroleum solutions and latex have replaced the benzene solutions.

Some benzene is still used in the manufacture of rubber goods, for example, rubber sheeting prepared on spreading tables. Some of these have efficient suction exhaust installed. In one other, although suction exhaust has been installed it is not yet functioning efficiently.

In the factories making solutions and/or adhesives, the percentage of benzene has been reduced considerably. In one instance, it was stated that there had been a reduction in the annual usage of benzene from 6,000 gallons to 800 gallons.

In the leather goods trade, petroleum solvents have largely replaced benzene, or the content of benzene has been reduced to less than 5 per cent. by weight.

In tanneries where benzene was formerly used in lacquers and sprays, it has largely been replaced by other solvents.

In plastics industries, toluene has replaced benzene in many factories.

It may be stated that in industry in Victoria there has been a very great reduction in the use of benzene. This has been brought about as a result of the Benzene Regulations.

SPECIAL INVESTIGATIONS.

In addition to the varied investigations done in a large number of different occupations and works, investigations in regard to the following were carried out:—

(*a*) *Investigations of cases of lead poisoning in children* and the circumstances which produced them. The causes included ingestion of lead from painted surfaces, from dirt in a yard, from the use in a kindergarten of colours containing lead, from the eating or chewing of miscellaneous articles. In several other cases the source of the lead was dust from the exhaust flue of a factory in which leaden ornaments were polished, and/or fragments of metallic lead picked up in the vicinity of the factory.

(*b*) *Petrol vapours in P.M.G. inspection pits.*—The petrol content of the air in two telephone cable inspection pits situated in one case a couple of hundred yards from a garage with underground petrol tanks were determined. The results showed that under certain circumstances dangerous concentrations of petrol vapour might occur.

(*c*) *Zinc in urine of children.*—The zinc content of urine of a child who had been treated for a considerable time with an ointment containing " zinc compound " was determined on several occasions. The results indicated a much increased excretion of zinc. It was considered likely that some of the symptoms of ill-health from which the child suffered were due to excessive zinc in the system.

(*d*) *Mercury in air and urine.*—The amount of mercury in the air of an instrument room in which thermometer and barometers were serviced was determined, and also in the air of a fur hat factory. In both places the amounts were within the permissible limits. The concentrations of mercury in the urines of two persons who worked in the former place was determined. The values were below those usually considered of significance in regard to mercury poisoning.

(*e*) *Irritant vapour in hold of ship.*—Men engaged in unloading cargo from the hold of a ship complained of irritation of the eyes, nose and throat and frontal headache, which symptoms were noticeable after a few moments in the hold. The cause of the irritating effects, which were quite severe during the period just after opening up the hold, was of a chlorinated napthaline vapour. Certain wooden cases which held machinery had been sprayed before shipment with solution of gammexane, in order to combat certain insect pests. During part of the voyage to Australia, the weather had been very hot, giving suitable conditions for the vaporization of the substance.

(*f*) *Carbon monoxide in motor vehicles.*—As a result of complaints of headache by the driver of a municipal street flushing vehicle the carbon monoxide content of the air in the driver's cabin was determined. The concentrations ranged from 190 parts per million of air by volume (p.p.m.) to 1,000 p.p.m. according to the exact location and the state of the windows. The complaints were quite justified. After repairs and adjustments to the engines, the results ranged from 50 to 100 p.p.m. The carbon monoxide was produced by the auxiliary engine used for pumping the water.

(*g*) *Dust from smoke stacks.*—An extensive series of atmospheric dust tests in the neighbourhood of the smoke stacks of an electrical power station were done. The results gave no evidence that the conditions were dangerous to health.

(*h*) *Air veil apparatus.*—Preliminary field tests of the effectiveness of an air veil apparatus for protection against sprays, dusts and gases, and vapours in the air have been done. It is proposed to recommend to the makers certain modifications in the design which might give greater efficiency.

(*k*) *Dust due to bulk loading of wheat.*—An investigation into the conditions during bulk loading of wheat has been commenced and is to be continued.

(*l*) *Lack of oxygen in vinegar vat.*—Two persons who entered a vat which had held unfiltered vinegar died.

The vat in which this tragedy occurred had been cut open near the bottom in order to extricate the persons affected; and the manhole at the top had been, of course, open. Analysis of the air remaining revealed nothing significant.

However, the air in another vinegar vat belonging to another firm and used for a similar purpose, i.e., storage, was tested. Three weeks had elapsed since this vat had been cleaned out and fermentation had gone on for this time.

The air showed 5·9 per cent. carbon dioxide and 7·05 per cent. oxygen. Air of this composition would, of course, cause death.

(*m*) *Poisoning due to oxides of nitrogen.*—A man who had been working for some hours with oxyacetylene flame in a confined space (on the rudder-post of a ship) collapsed on his way home on his bicycle. He was taken to hospital. Chest X-ray showed gross changes of unknown origin. He made a rapid recovery and the X-ray picture completely cleared up. There is no doubt he was a case of acute pneumonitis due to inhalation of oxides of nitrogen.

(*n*) *Survey of the dusty trades.*—Through the co-operation of the Division of Mass X-ray Surveys 1,354 X-rays have been taken on large film of men engaged in dusty trades. Sixty-five of these showed X-ray evidence of pneumoconiosis and another 17 are regarded as suspicious and require further investigation. These 82 persons were personally contacted and industrial histories obtained.

Questionnaires as to the industrial history and the presence or absence of symptoms were sent to 230 individuals previously reported and replies were received from 170.

In addition some hundred old silicotics were interviewed either at their homes or when they reported for X-ray.

Prior to the advent of the Mass X-ray Survey, the only reports of pneumoconiosis ever received were from Bendigo; these were silicotics from the mines. Since the Mass X-ray has commenced operations, all cases observed have been reported to this Division, and all these cases have been personally investigated as to symptoms and industrial history and in the large majority, the diagnosis has been confirmed. Some give no evidence of exposure to dust and cannot be regarded as pneumoconiosis cases.

Prior to the X-ray survey 129 cases were reported from Bendigo, from 1937–1949. Disregarding these who are very hard to trace and many who will have died, we find that on our records there are 606 cases of pneumoconiosis contracted in many trades.

(*o*) *Hazards in rock tunnelling.*—Tests were done at the Eildon Weir tunnel construction, at the request of the contracting firm, for dust and carbon monoxide from the diesel engines. The tunnel was 750 ft. long and 28 ft. in diameter. The dust counts ranged from 2–400 million particles per cubic foot of air and the free silica from nil to 33·3 per cent. Some of the dust counts were therefore very excessive. The carbon monoxide tests ranged from nil—50 parts per million of air, and were on the occasions of the tests, satisfactory; 8 tests were done.

Ventilation was not generally satisfactory, being good at ceiling level but bad at floor or head level.

The company had already taken some steps to improve the conditions. Further improvements recommended to improve the conditions were carried out, but owing to the tunnel being completed six weeks after our tests the effects of these could not be determined.

COMMITTEES.

The Chief Industrial Hygiene Officer has attended meetings of the following committees:—

(1) Interdepartmental Committee on Newer Fungicides—as Chairman.

(2) Committee on Industrial Hygiene of the National Health and Medical Research Council.

(3) Committee of Standards Association dealing with Eye Protection in Industry and Protective Clothing.

(4) Committee appointed by the Minister of Mines to examine the Health and Safety Provisions of the Mines Act.

LECTURES.

The following lectures were given by the Chief Industrial Hygiene Officer :—

Two lectures on industrial hygiene given to nurses attending a course for tutor sisters at the College of Nursing.

Six lectures on occupational diseases to two classes (3 each) doing a course on safety organized by the Melbourne Technical College for managers, safety officers, &c.

One lecture to 5th and 6th year medical students.

Two lectures on industrial hygiene to students doing Health Inspectors' course.

One lecture to Royal Melbourne Hospital Old Students Association.

One lecture on occupational diseases to Trades' Hall Council.

One address to Industrial Medicine Section of the British Medical Association.

Dr. Thomas read a paper on industrial chest diseases at a combined meeting of the above Section and the Radiological Section of the B.M.A.

LEGISLATION.

Pesticides.—Regulations concerning the manufacture and Regulations concerning the use of certain of the newer pesticides have been gazetted.

Lead Trades.—The Commission has approved of amended regulations in regard to medical examination in the lead trades which increase the scope of these examinations, and provide for more efficient supervision of reports in regard to them.

Benzene.—The Amending Benzene Regulations 1953 were gazetted on 24th March, 1953. They set out the method to be followed in the analysis of materials for benzene content, and make an alteration in the required labelling in the case of liquids containing less than 20 per cent. of benzene by weight which are used only as motor fuels.

Entry into Tanks, Vats, &c.—Regulations in regard to the precautions to be observed prior to, and during entry into vats, containers, reaction vessels, tanks, silos, &c., are being drafted.

RESEARCH.

Research into the following subjects has been carried on and in some cases completed :—

(1) The effects of intravenous injections of sodium thiosulphate on the faecal and urinary excretion of lead in cases of lead poisoning. The writing up of this work is nearly complete.

(2) The significance of the coproporphyrin content of urine as an indication of lead absorption, and its use in routine control of the health of lead workers. A paper on this has been accepted for publication. (See under " Publications ".)

(3) A method for the analysis of lead in blood, which can be used for the amounts of blood obtained from a finger prick has been developed.

(4) Preliminary work on the excretion of lead in sweat has been done. It appears that significant amounts of lead can be got rid of in this way.

(5) A comparison of the effectiveness of different X-ray films from the point of view of case finding of pneumoconiosis has been done in regard to 35 mm., 70 mm., 17″ x 14″ screened, and 17″ x 14″ unscreened films. It will be submitted for publication at an early date. It indicates the wide difference of opinion of radiologists in interpretation of X-rays, and also that for certain observers the 35 mm. film is very useful for case finding.

It is hoped to do further work on this subject.

(6) *Cholinesterase determinations.*—Some work has been done on methods suitable for this laboratory for the determination of cholinesterase in blood. This work is being continued.

(7) A rapid method for the analysis of lead in urine, which would be of sufficient accuracy for clinical purposes would be very valuable. A considerable amount of work has been done on this, and it is hoped that a method requiring only small amounts of urine and 10–15 minutes of time will be developed.

PUBLICATIONS.

A paper " Coproporphyrinuria in Persons Exposed to Lead Hazards " by D. O. Shiels, G. A. Palmer, P. E. Cornish, and E. J. Kearley has been accepted by the Medical Journal of Australia.

A paper by S. B. Sutton and D. O. Shiels on " Poisoning of Firemen by Oxides of Nitrogen " is to be published in the Health Bulletin.

A paper by D. L. G. Thomas on " Dust " is to appear shortly in the Health Bulletin.

The material for a brochure on the activities of the Industrial Hygiene Division is nearly complete. It is proposed to include regularly in the Health Bulletin short notes on matters of interest in connection with industrial hygiene or occupational health.

D. O. SHIELS, D.Sc., Ph.D., F.R.I.C., F.A.C.I., M.D., B.S.,
Chief Industrial Hygiene Officer.

REPORT OF THE ENGINEERING DIVISION, 1952–53.

STAFF.

Mr. C. F. Morrish was appointed senior engineer and the consequent vacancy has recently been filled.

One building surveyor resigned to take up a position with the Hospitals and Charities Commission, but this was rectified by the appointment of an additional building surveyor to the building staff.

Except for one building surveyor the staff is now at full strength. It is hoped that the outstanding vacancy will be filled shortly.

SEWERAGE AND SEWAGE DISPOSAL.

The amount of sewerage work remains at a low level and there appears little hope of a major resumption.

Construction at Moe has proceeded steadily and it is expected that the plant will be in operation shortly.

The construction of the outfall sewer from Newborough is well forward and the operation of the Moe plant will be commenced with connection of this large settlement.

One new plant has come into operation, i.e., Eildon township ; this was constructed by the State Rivers and Water Supply Commission in conjunction with the big Eildon project.

Tenders have been called and work should commence soon on major extensions at Mildura. The works will include modification of the treatment works and the construction of a new outfall sewer from the town which will eliminate the existing pumping station which is on the banks of the river, and provide a new pumping station close to the treatment works.

One item of major interest is the proposed construction of the first double filtration plant in Victoria as an extension to the Dandenong treatment works, treating trade wastes from a major food processing company project which will shortly be undertaken on the outskirts of the town. Double filtration has become extremely popular in the British Isles, and experience with this extension should be of considerable value in determining the type of plant which would best suit the needs of future sewerage works in this State.

Plans were approved for extensions of the Colac sewage treatment works designed to handle the waste from the municipal abattoir which for many years has been polluting Lake Colac.

The construction of the new night soil dumping station on the outfall sewer near the treatment works at Ballarat is proceeding, and it is expected that operations will commence here shortly.

The quarterly inspections of treatment works were not resumed during the year owing to shortage of staff. However the staff is now up to full strength and the inspections will be resumed in August.

The 14th Annual Conference of Sewerage Engineers and Operators was held on 23rd September, 1952, in the Board Room of the Melbourne and Metropolitan Board of Works. Attendance was good, and the number who attended luncheon was higher than usual. The conference was opened by the Chief Health Officer, Dr. K. Brennan, and the main subject of discussion was double filtration. A novel feature was the showing of a film on overseas sewage treatment. The Branch has been preparing a coloured film showing sewage treatment as practised in Victoria, and it is hoped that this will be shown at the next conference in September.

Reference was made at the conference to the debt owed to the late Mr. Hepburn. It was suggested that some suitable memorial should be made to his memory and the conference passed a resolution that a prize, to be known as the Hepburn Prize, be awarded at each conference for the best contribution by an operator. This proposal was endorsed by the Commission, and the Minister has approved that a grant of the sum of three guineas be set aside each year.

SEPTIC TANK SYSTEMS.

The number of plans examined in the calendar year was 50 per cent. in excess of those examined in the preceding year. The volume of requests for information on septic tank installations in general also increased considerably. It is very apparent that the public is becoming increasingly "septic tank minded" and that few managements are prepared to construct factory buildings without suitable provision of sewerage for staff conveniences. Five country towns were investigated under the provisions of the *Local Government* (*Septic Tanks*) *Acts* 1938 to determine the possibility of mass septic tank installations. Three towns were recommended to instal standard septic tanks and two to instal septic tanks and closets according to the requirements of particular sites.

The Health Act has yet to be amended to give the Commission control of septic tank installations in public buildings.

STREAM POLLUTION AND TRADE WASTE DISPOSAL.

The site of the future Latrobe Valley Drainage Commission's outfall sewer, which will run from Morwell to the Ninety Mile Beach, was investigated by the Chief Engineer and the District Health Officer, and the opinion was expressed that there was no health objection to the proposal that the sewer be an open earthen channel from beyond Longford to the sea. No construction work on this sewer has been commenced yet.

At Ballarat the Yarrowee Creek has been relieved of the wastes from the Myer Woollen Mills which are now discharged to the Ballarat sewerage system after pre-treatment required by the Sewerage Authority.

General stream pollution surveys have not been possible owing to the shortage of engineering staff.

ABATTOIRS AND OFFENSIVE TRADES.

Little progress has been seen in abattoir construction or renovation during the past year, and few plans have passed through the Branch.

Construction has at last commenced on municipal abattoirs at Kyneton. Private enterprise has accounted for other developments, a small co-operative abattoir having been completed at Maryborough. Extensive modifications are being undertaken at some abattoirs in the Metropolitan area.

HOSPITAL CONSTRUCTION.

Once more financial limitations have resulted in the large number of hospital works in hand making slow progress. However, the following is a list of major works completed in the financial year :—

Bendigo General Hospital, Midwifery Wing.

Apollo Bay District Hospital.

Ballarat and District Base Hospital, Nurses' Home.

Prince Henry's Hospital, temporary Out-Patients' Department.

Geelong District Hospital, temporary Maternity Block.

St. George's Hospital, Kew, Nurses' Home.

Yarrawonga District Hospital.

Footscray District Hospital.

South Gippsland Hospital, Foster.

Yarram District Hospital, Nurses' Home.

Corryong District Hospital, Nurses' Home.

Mordialloc and Cheltenham District Hospital.

Warracknabeal District Hospital, Nurses' Home.

PUBLIC BUILDINGS.

The stimulus given to public building construction by the easing of building controls has been outweighed to some extent by the Loan Fund restrictions and the general unavailability of finances for private construction. As a result the number of public building plans examined in the calendar year remained almost constant at 732. Pre-school centres vied with public halls and churches for first place for the maximum number of new projects, 149 plans being examined.

During the year building inspectors were allocated separate country districts on the lines of those apportioned to District Health Inspectors. The value of the system is already apparent and resulted in an increase of nearly 13 per cent. in the total number of building inspections carried out during the year.

The long awaited amended Public Building Regulations were at last gazetted on 22nd December, 1952.

The employment of firemen in theatres mentioned in my last report remains under debate. The matter was discussed at length by the Commission in November, and consideration of the regulation amending this section was deferred for six months.

The report of the Committee investigating natural lighting in schools has not yet been submitted to the Commission, and consequently, no action has been taken to amend the Schools Regulations.

The Tent Regulations have been amended and extended to include foreshore amusements and structures, and entertainment parks generally, and a draft has now been circulated to Municipal Councils and other interested parties for consideration and comment.

One item of considerable interest in the administration of Public Building Regulations has been the classification of the many lining materials now on the market according to their resistance to fire encroachment. The following lining materials have been tested and graded as under.

Approved Uses.

(1) For all lining purposes, including Bio-cabins (Grade A).

(2) For General Public Building use, excluding Bio-cabin linings (Grade A or B).

(3) For use in Public Buildings not exceeding 1,000 sq. ft. in area (Grade A, B, C).

Approved Materials.			Unapproved Materials.
Grade A.	Grade B.	Grade C.	
Eternit ..	Bukas board ..	Flameproof	All brands paper pulp based boards
Fibro-plaster	Weyroc ..	Sundeala..	Masonite—tempered
Paxfelt ..	Weyroc veneer		Preswood—Tempertile
Paxtile ..	Plimberite ..		Laconite Savo board
Gypsum wallboard	Caneite (treated with Rescote solution during manufacture)		Burnie board Swedish hardboard
Fibortex	Reswood (fire-proofed)		Swedish insulation board Finn board Caneite (untreated) Caneite "Acoustitile" (treated with Rescote) Caneite (ivory-faced) Fibro-cement Plywood Hammerlac Brannlac Timbrock

Special Investigations.

By Mr. J. F. McDonnell, B.C.E., A.M.I.E.A., Chief Engineer.

Date.	District.	Matter Investigated.	Outcome.
12th November, 1952 ..	Leitchville ..	Leitchville Hotel septic tank ..	Advice forwarded to Licensing Court
20th November, 1952 ..	Latrobe Valley ..	Sewer from Morwell to Ninety Mile Beach	S.R. & W.C. advised no sanitary objection
17th March, 1953 ..	Mooroopna ..	Hospital septic system ..	Department recommended to accept existing conditions pending town sewerage
14th April, 1953 ..	Melbourne ..	Fish market	Report to Commission
16th April, 1953 ..	Robinvale ..	Drainage	Council's application for subsidy supported
15th May, 1953 ..	Flemington ..	Racecourse	Closing Order on old stand recommended

Special Investigations—*continued*.

By Mr. C. F. Morrish, B.Sc. (Eng.), A.M.I.E.A., Senior Engineer.

Date.	District.	Matter Investigated.	Outcome.
July, 1952	Latrobe River . .	Drainage and sullage pollution of river from North and East Newborough	Outfall sewer constructed to Moe Sewerage Authority Treatment Plant
3rd August, 1952 . .	Kilmore	Stream pollution	Action against standard septic tanks and discharge of effluent
25th August, 1952 . .	East Morwell . .	Sewage treatment plant . .	No action possible pending complete sewerage
26th August, 1952 . .	Port Albert . .	Albert River pollution . .	Factory has removed to Yarram
15th October, 1952 . .	Box Hill . .	Gas works, pollution of surrounding streams	Committee to be appointed to investigate
14th October, 1952 . .	Creswick . .	Survey for mass septic tank installation	Approval granted. Scheme in course of preparation
15th October, 1952 . .	Box Hill . .	Selection of site for Cemetery extension	Awaiting report from Town Planning Authority
15th December, 1952 . .	Trentham . .	Survey for mass septic tank installation	Approval recommended
July, 1952–June, 1953 . .	. . . . . .	Testing of lining materials by Department for resistivity to fire encroachment	Commission adopted resulting classifications
January–June, 1953 . .	Metropolitan . .	Investigation in association with various manufacturers of development of small pre-cast concrete septic closet units	Several successful commercial septic closets now available to public and receiving widespread installation
22nd April, 1953 . .	Kilmore	Investigation of mass septic closet installation for township and address of public meeting	Scheme in course of preparation
15th May, 1953 . .	Broadford . .	Investigation of mass septic closet installation for township and address of public meeting	Scheme in course of preparation
January–May, 1953 . .	. . . . . .	Preparation of draft of Amusement Park Regs. for circulation	In circulation
April–May, 1953 . .	. . . . . .	New standard design for municipal abattoirs	

By Mr. J. Babkaitis, B.C.E. (Lithuania).

Date.	District.	Matter Investigated.	Outcome.
18th February, 1953 . .	Jung	Survey of Jung Township mass septic tank installation	Approved and work is now in operation
19th February, 1953 . .	Willaura . .	Survey of Willaura mass septic tank installation	Investigation deferred

Plans Examined.

Class of Building.	New Buildings.	Alteration or Addition.	Total.
Theatres	1	3	4
Picture Theatres	6	38	44
Dance Halls	6	1	7
Public Halls, Churches, Sunday Schools	160	175	335
Day Schools	21	59	80
Pre-school and Infant Welfare Centres	149	12	161
Public Hospitals	10	26	36
Infectious Diseases Hospitals . .	. .	1	1
Benevolent, Babies', and Other Institutions	6	13	19
Entertainment Parks, Travelling Shows, Sports Arenas . .	7	6	13
Other Public Buildings . .	16	16	32
Total Public Buildings . .	382	350	732
Offensive Trades Premises . .	3	7	10
Total Buildings	385	357	742
Mechanical Ventilation and Electrical Plans	181	275	456
Public Sewerage Systems . .	2	6	8
Septic Tank Systems	135	2	137
Total Plans Examined . .	703	640	1,343

Inspections.

Day Inspections.

Building and Electrical Inspections . .	4,678
Tests of Mechanical Ventilation Systems . .	21
Offensive Trade Premises	17
Septic Tank Systems	102
Factory Drainage Disposal Systems	8
Public Sewerage Systems	52
Inspections on behalf of Hospital and Charities Commission	120

Night Inspections.

Enforcement of Regulations	2,208
Collection of Air Samples	11
Total Inspections	7,217

BOARDS AND COMMITTEES.

The Chief Engineer continues to act as a member of the Building Regulations Committee and a Referee under the Local Government Act. He attended 40 meetings of the Building Regulations Committee and 30 of the Referees.

Mr. C. E. B. Waldron, M.Sc., Senior Building Surveyor, is a member of the Municipal Surveyors' Board and attended three meetings. Mr. Waldron continued as the Chairman of the Plumbers and Gasfitters Board and his report is appended.

Mr. F. Curzon-Siggers, Senior Electrical Inspector of the Branch was appointed Chairman of the Cinematograph Operators Board in succession to Mr. C. Cross.

J. F. McDONNELL, B.C.E., A.M.I.E.A.,
Chief Engineer.

REPORT OF PLUMBERS' AND GASFITTERS' BOARD, 1952.

The Board held four ordinary meetings.

The finances of the Board, reported previously in recent years as approaching bankruptcy, further deteriorated and during the year the Department of Health took responsibility for the payment of the salary of the Inspector on the understanding that if and when the amending legislation giving the Board power to raise the annual renewal of registration to 10s. was enacted the Board would re-imburse it. An approach was made to the Government for the inclusion of the draft prepared in 1947 in the proposed amendments to the Health Act but it was refused.

The much desired Interstate Reciprocity Agreement of Certificates of Competency as a Plumber and Water Plumber became operative in October and already the benefits are apparent.

Two examinations were held. The standard of trade skill in the examinees showed a slight improvement. The period of examinations was extended to nine hours practical and three hours theory which has allowed examinees longer to settle down to their problems.

The number of applications for registrations showed a marked upward trend and at the end of the year the number registered had increased by over 800 names.

The Board was re-constituted in February, the only change in personnel being Mr. A. J. Letten vice Mr. S. M. Gilmour for the Master Plumbers Association.

Mr. R. G. Stranks, the representative of the Education Department, has been responsible for a greatly improved co-operation between the Technical Schools and the Board. The formation of a special class at the Melbourne Technical School for persons recommended by the Board to obtain additional education is noted.

The number of names in the register at 31st December, 1952, was 4,237. The number of applicants approved was 456 and of applicants registered 417.

The assets were £1,662 and the expenditure as previously mentioned is being adjusted with the Health Department. In fact the Board's indebtedness exceeds the above figure.

Mr. G. J. Dean resigned as inspector in March and Mr. K. Paterson commenced his duties in June. Mr. Paterson is a most competent and valuable officer and his relationship with the public is excellent.

Mr. F. Vine, Registrar, was forced on account of ill-health to take extended sick leave until his retirement in November. Mr. R. P. Carty deputized until that date when he was formally appointed Registrar. He has carried out his duties with zeal and efficiency. He has had clerical assistance.

The necessity for a second inspector is apparent to the Board and a formal request for such appointment is expected to be made in the forthcoming year.

The increased activities of the Board and the changes in personnel have added to my duties which have occupied 35 days of my time.

C. E. B. WALDRON, M.Sc.,
Chairman.

REPORT OF VENEREAL DISEASES DIVISION FOR YEAR ENDING 30th JUNE, 1953.

STATISTICS AND COMMENT THEREON.

(The figures quoted in this paragraph are for calendar years.) The table below shows the reported incidence of gonorrhoea and acquired syphilis in Victoria for the years 1948 to 1952.

Year.	Gonorrhoea.		Syphilis.	
	Male.	Female.	Male.	Female.
1948	1,533	199	270	119
1949	966	188	272	89
1950	920	96	309	130
1951	650	68	190	91
1952	597	71	145	73

(In the above figures multiple infections are included in both totals.)

Except in the case of gonorrhoea in females, where there is an increase of three, the incidence is considerably lower than in the preceding year.

GOVERNMENT CLINIC, MELBOURNE.

(*a*) *Male Section.*

The total number of patients reporting during the year was 1,812—an increase of 63 on the previous year.

A table showing detailed diagnoses and the monthly incidence appears at the end of this report.

At the Prophylactic Centre, a total of 7,854 toilets were given, an increase of 1,092 on the previous year. The lowest monthly total was 557 in June, and the highest 782 in October.

Experience indicates that a Centre given prophylactic toilet administered within eight hours of exposure gives virtually 100 per cent. protection against syphilis and gonorrhoea.

The few cases which at first sight appear to have developed one of these diseases after prophylaxis have all admitted, on careful interrogation, to an unguarded exposure within the incubation period of the disease in question.

(*b*) *Female Section.*

In 1952, 313 patients reported to the Female Clinic—increase of ten on the previous year.

The classified diagnoses of these patients is set out hereunder :—

Gonorrhoea	28
Syphilis	10
Gonorrhoea and Syphilis	1
Cervicitis	19
Vaginitis—	
Trichomonal	27
Other types	16
U.S.A. and Canadian Passport Visa Examinations	114
Other conditions	59
Nothing abnormal Detected	39
	313

(" Other Conditions " includes carcinoma of clitoris, salpingitis, cystitis, endometritis, skin diseases and other ailments suspected by the patient as being of venereal origin.)

GOVERNMENT CLINIC, GEELONG.

During 1952, 39 patients were investigated and treated when necessary. The classified diagnosis is set out hereunder :—

—	Males.	Females.	Total.
Syphilis	8	2	10
Gonorrhoea	2	1	3
Non-gonorrhoeal Urethritis ..	17	..	17
Nothing abnormal detected ..	7	2	9
			39

LOCALITY INCIDENCE OF VENEREAL DISEASES.

The State venereal statistics for 1952 show that the reported incidence outside the Metropolitan Area and Geelong is very low, four cases only being recorded as " Rest of State ". Of a grand total of 889 venereal infections reported for the year 1952, 397, or 44·65 per cent., were treated at the Government Clinics at Melbourne and Geelong.

TREATMENT.

The treatment of syphilis by penicillin alone, which was commenced at the Government Clinic, Melbourne, on 1st January, 1952, has been continued with very satisfactory results.

Aureomycin has proved a valuable addition in treating trichomonas infestations in the female.

A suspenso-solution made by shaking the contents of two capsules of this remedy in 100 c.c. of water and instilling this into a trichomonas infested bladder has given excellent results.

WINLATON.

The great improvement in treatment techniques which have occurred recently have steadily reduced the number of women requiring institutional treatment. The number of patients now or likely in the future to require treatment in Winlaton is so low that a submission for the discontinuance of this Institution is in preparation.

C. G. B. COLQUHOUN,
M.O. I/c. V.D. Division.

MALE CLINIC, MELBOURNE—CLASSIFIED DIAGNOSIS FOR 1952.

Month.	Gonorhoea.	Soft Sore.	Primary Syphilis.	Secondary Syphilis.	Tertiary Syphilis.	Latent Syphilis.	Gonorrhoea and Syphilis.	Urethritis and Syphilis.	Total V.D.	Other Conditions.	N.G.U.	N.A.D.	N.Y.D.	Total.
January	14	..	1	6	..	..	1	..	22	31	53	45	1	152
February	15	..	5	10	..	..	..	..	30	18	43	57	..	148
March	20	..	1	6	1	..	..	1	29	18	41	64	..	152
April	21	..	1	3	..	..	..	1	26	17	40	60	..	143
May	30	..	..	3	..	1	..	..	34	25	42	57	..	158
June	31	..	1	3	..	..	..	1	36	20	45	54	..	155
July	30	..	3	3	..	..	..	..	36	18	53	67	..	174
August	19	..	1	5	..	1	1	..	27	18	43	48	..	136
September	30	..	2	6	1	..	..	1	40	19	59	37	..	155
October	15	..	1	3	..	..	1	..	20	16	73	58	5	172
November	13	..	2	3	..	..	..	..	18	21	53	33	..	125
December	15	..	2	3	..	..	1	..	21	29	69	23	..	142
	253	..	20	54	2	2	4	4	339	250	614	603	6	1,812

The total of 603 shown under N.A.D. (nothing abnormal detected) includes 101 examinations for U.S.A. and Canadian Passport Visas.

STATE VENEREAL DISEASE STATISTICS FOR 1952.

Area.	Gonorrhoea.		Acquired Syphilis.		Congenital Syphilis.		Gonorrhoea and Syphilis.		Soft Sore.		Gonorrhoea, and Soft Sore.		Syphilis and Soft Sore.		Gonorrhoea, Syphilis, and Soft Sore.		Total Notifications.		Total Infections.		Grand Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Metropolitan ..	336	36	51	52	2	1	..	5	..	..	..	..	..	..	..	..	389	94	389	99	488
Melbourne Clinic ..	253	28	84	13	..	..	2	1	..	..	..	..	..	..	..	..	339	42	341	43	384
Geelong Clinic ..	2	1	8	2	..	..	..	..	..	..	..	..	..	..	..	..	10	3	10	3	13
Ballarat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bendigo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rest of State ..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	4	..	4
Whole of State ..	595	65	143	67	2	1	2	6	..	..	..	..	..	..	..	..	742	139	744	145	889

REPORT OF THE ACTING MEDICAL SUPERVISOR FOR POLIOMYELITIS FOR THE YEAR ENDING 30TH JUNE, 1953

GENERAL.

Poliomyelitis has continued to be endemic in Victoria during the past twelve months with the disease reaching epidemic proportions in limited areas during the year. There is, however, a decline over the past three months, which may indicate a general decrease during the coming year. In view, however, of the high incidence since 1945, and particularly during the past five years, such a prediction remains very uncertain. The virus research unit at Commonwealth Serum Laboratories has found that the 1948–49 epidemic was due, predominately, to the Brunhilde strain of virus, and that the series of cases occurring in late 1952–early 1953 were due to a Lansing strain. There have also been some cases of Leon strain of virus. As far as is known there is no significant cross immunity between these three strains, and it may well be that the apparent endemic state of the disease, during the past years, has been due to confluent epidemics with all three known strains of virus. If such is the case, it may be that we can look forward to a period of decreased incidence comparable to the state of affairs occurring between epidemics before 1945. However, there has been a marked change in the epidemiology of the disease in this country in the past twenty years. The age distribution of cases has altered so drastically that it would appear likely that within a few years poliomyelitis may well be a disease predominately affecting the adult population, or at least, affecting all ages equally (see Table I.).

Any attempt to explain this effect must remain conjectural, but could be related to the change from an epidemic to an endemic disease, and this would then vitiate the above.

SPECIAL EPIDEMIOLOGICAL FEATURES.

Inoculation Poliomyelitis.

During the past twelve months, 20 cases of poliomyelitis under the age of 10 years were investigated. Three of these cases had followed inoculations of some immunizing material and two cases followed other injections.

Contact Cases.

In only 5 cases, of 60 cases investigated, could any direct contact with a known case be traced.

Localized Epidemics in Country Areas.

In addition to the scattered cases in rural areas, the following small epidemics occurred in the country :—

South Gippsland ..	10 cases, February, March, and April
Nhill	30 cases, October and November
Warrnambool ..	12 cases, February, March, and April
Yallourn	12 cases, March and April

These cases did not present any outstanding features. They do, however, mask the general picture of an epidemic in the city from November to January, spreading to the country in February and March. These local outbreaks occurred unrelated to the general picture in the state as a whole. It was not possible to trace the origin of the infection in any area, and such an occurrence must be considered possible at any time without warning.

Diagnostic Facilities.

During the past year the number of diagnostic consultants available to assist practitioners in the diagnosis of cases of poliomyelitis has been increased to 14. These services were used in some 350 cases (300 metropolitan), of whom about two-thirds were excluded as not poliomyelitis, resulting in the better treatment of such cases and the avoidance of many unnecessary admissions to Infectious Diseases Hospitals, with a resultant decreased charge on the State. The present rapid expansion of poliomyelitis and allied virus research facilities is most welcome and should improve the standard of diagnosis and epidemiology during the next few years.

AFTER-CARE.

The transfer of the After-care Unit from Welfare House to Lady Dugan House has proved very satisfactory, the latter building being much better suited to the requirements of these patients.

It is now possible to provide itinerent physiotherapy in any area where the number of cases warrants such activity. Long-term admission to a hospital is now restricted almost entirely to those cases where the home circumstances, and the severity of the case, makes discharge impossible, or where the case is an isolated one in an area where physiotherapy is not otherwise necessary.

The provision of treatment and review for cases in the metropolitan area does not present any major difficulty. Some idea of the organization involved in the provision of similar services in the country may be had from the fact that, as set out in Table II., some 765 individual cases were seen in the country at 59 clinics, at a total of 1,686 consultations. Of these, approximately two-thirds were seen at clinics conducted by departmental officers, and the remainder at clinics arranged by the Department, but conducted by outside consultants, assisted by a departmental officer, at the request of the Consultative Council.

About half of these are receiving physiotherapy supervision, and another quarter are reviewed by the visiting sisters, between clinics.

OFFICE ACCOMMODATION.

In May, the office of the Poliomyelitis Division was shifted to Stonnington. This has resulted in a vast improvement in the accommodation provided for all members of the staff, in particular those members of the staff responsible for treatment, for whom almost no provision had previously been possible. As a result, the Division is now functioning much more smoothly, and the distance from the city has not proved of any significance. The only deficiency now remaining is provision for treatment of those patients who are working and cannot be seen at home at a reasonable hour.

The Division, and its officers, have received valuable assistance from all those other organizations which are concerned with the problem of poliomyelitis and its sequelae.

PETER L. COLVILLE,
Acting Medical Supervisor for Poliomyelitis.

TABLE I.—AGE INCIDENCE OF POLIOMYELITIS—VICTORIA.

Age in Years.	1937–1938. Number of Cases.	Percentage in Each Age Group.	1949–1950. Number of Cases.	Percentage in Each Age Group.	1952–1953. Number of Cases.	Percentage in Each Age Group.
0–4	596	28·5	253	27·0	90	22·0
5–9	953	45·5	233	24·5	91	22·0
10–14	326	15·5	114	12·0	58	14·0
15 and over ..	221	10·5	345	36·5	171	42·0
Totals ..	2,096	100·0	945	100·0	410	100·0

TABLE II.—AFTER-CARE IN POLIOMYELITIS.

Clinic.	Total of Clinics.	Total of Individual Cases Seen.	Total of Consultations.
Ballarat	8	75	225
Benalla	5	49	128
Bendigo	3	33	50
Dandenong	5	35	76
Geelong	4	31	59
Horsham	2	34	43
Mildura	3	27	43
Mooroopna	5	21	56
Nhill	3	50	80
Stawell	2	8	13
Sale and Bairnsdale ..	9	125	242
Wangaratta	6	47	111
Warragul and Wonthaggi	1	10	10
Western District ..	3	220	550
Totals ..	59	765	1,686

TABLE III.—POLIOMYELITIS.

Metropolitan and country cases over the past twelve months :—

	Metropolitan.	Country.
1952—		
July ..	10 ..	8
August ..	3 ..	11
September ..	15 ..	12
October ..	5 ..	24
November ..	32 ..	33
December ..	30 ..	25
1953—		
January ..	31 ..	24
February ..	12 ..	33
March ..	13 ..	38
April ..	4 ..	28
May ..	1 ..	11
June.. ..	— ..	5
Totals ..	156 ..	252

TABLE IV.—Poliomyelitis cases over past ten years (whole State) :—

1942	23
1943	9
1944	9
1945	238
1946	247
1947	124
1948	55
1949	760
1950	202
1951	420
1952	297
1953 to 30th June	200

TABLE V.—Age distribution of cases—1952–53 (from 1st July, 1952, to 30th June, 1953 :—

Age—	
1–4	90
5–9	91
10–14	58
15–19	46
20–24	38
25–29	47
30–34	18
35–39	9
Over 40	13

REPORT OF THE GOVERNMENT CHEMIST FOR THE YEAR ENDING 30th JUNE, 1953.

STAFF.

As recorded in the last report, the medico-legal chemists had been transferred to the Crown Law Department, although they were, at the end of last year, still located at the State Laboratories. In December last they moved to laboratory accommodation which had been provided at the Morgue. Thus ended a very long association of medico-legal chemical work with the Health Department.

GENERAL.

The number and type of samples submitted during the past year, mainly by the Department and by municipal inspectors, are shown in the attached table. In addition, 370 samples of milk were analyzed for the Department of Agriculture, a relatively large proportion of which were found to be watered. The number of samples submitted by Municipal Inspectors and, consequently, the total number of samples, show a marked increase (approximately 25 per cent.) over last year.

The table also shows the number of samples found to be adulterated, or not in compliance with a prescribed standard. The proportion of samples which were adulterated (8 per cent.) is also appreciably higher than was the case last year. This is mainly due to a much higher number of sausage samples not complying with the prescribed standard, about which further comment is made later.

EFFLUENTS.

The number of effluent samples, mainly taken by the chief engineer in checking the efficiency of country sewage works, is practically the same as last year. A number of samples of trade wastes, suspected of polluting streams, were also analyzed.

INDUSTRIAL HYGIENE.

A proportion of the chemical work required by the Chief Industrial Hygiene Officer continues to be submitted to this laboratory. These samples included various types of material for free silica, specimens for lead, arsenic, and other poisonous elements and solvents, &c., for benzene.

MISCELLANEOUS SAMPLES OF INTEREST.

Sausages and Sausage Meat.

A recent amendment to the standard for sausages included a maximum fat content, as well as a minimum meat content. The standard now prescribes a minimum of 75 per cent. meat and that the fat content shall not be more than 33⅓ per cent. of the total meat present. Nearly 300 samples were submitted, of which 104 failed to comply with the standard, in one respect or another. Thirty-six samples contained excess preservative and the remainder were deficient in meat, or excessive in fat, or both. It is expected that, after this initial period, the percentage of samples not complying with the standard will decrease. The analysis of these samples is a long and tedious process and has, at times, taxed the resources of the staff.

Horseflesh.

A sample of meat seized from a butcher's shop by an Inspector was proved to be horseflesh. Saveloys, sausages, and frankfurts were tested for the presence of horseflesh, with negative results. However, these results were not necessarily conclusive, as the cooking process interferes with the precipitin test.

Canned Tomato Juice Products.

Samples of canned tomato juice on the market were analyzed for ascorbic acid (Vitamin C); all but one sample complied with the minimum requirement. Duplicate samples are being held for later analysis, to determine if there is any appreciable loss in vitamin on shelf storage.

Variations in copper content of various brands of canned tomato paste were found, the range being from 4 to 20 parts per million. Assuming a normal copper content in the original tomatoes, concentration to paste would be expected to result in a copper content of from 5 to 10 p.p.m. It is of interest that some copper equipment was used in the preparation of the samples containing 20 p.p.m.

Fluoride Content of Waters.

The survey of Victorian waters for fluoride content has been actively continued. Practically all town water supplies in the State have now been analyzed at least on two separate samplings.

Powdered and Mixed Colourings.

Colourings used by children in kindergartens, &c., have been analyzed for lead content. All brands on the market were examined and four were found to contain lead (7–31 per cent.).

Samples Submitted by (a) Municipal Health Inspectors, and (b) taken by Departmental Officers, etc., and Analysed at the Department's Laboratory for the Period Twelve Months Ended 30th June, 1953.

Sample.	A.		B.	
	Number Submitted.	Adulterated or not Genuine.	Number Submitted.	Adulterated or not Genuine.
Baking Powder ..	2	..	..	..
Bicarbonate of Soda ..	1	..	..	..
Bread	5	..	..	..
Butter	25	2	2	..
Cake	1	..	..	..
Cereals, Grains, &c. ..	3	..	..	..
Cheese	12	..	1	..
Cheese, Cream ..	1	..	..	..
Cocoa	2	..	..	..
Coffee	12	..	6	..
Coffee and Chicory ..	7	..	..	..
Confectionery ..	6	..	..	..
Cordials and Syrups, Fruit Juice ..	4	..	..	..
Cordials and Syrups, Imitation	..	..	1	..
Corn Flour	8	..	..	..
Cream	21	..	..	..
Cream of Tartar ..	1	..	..	..
Custard Powder ..	6	..	..	..
Drinks, Summer and Temperance ..	19	..	1	..
Effluents	10	..	119	..
Flocks, Rags, &c. ..	..	..	10	..
Flour	1	..	..	..
Fruit, Dried.. ..	1	..	..	..
Honey	6	..	..	..
Ice Cream, Ice Blocks, &c.	4	..	..	..
Icing Powder and Sugar	6	2	..	..
Jam and Conserve ..	5	..	..	..
Jelly Crystals ..	2	..	..	..
Lard and Dripping ..	1	..	..	..
Margarine	2	..	30	4
Meals, Prepared and Digestive	1	..	..	..
Meat, Canned ..	..	..	1	..
Meat, Chopped ..	63	13	1	..
Meat, Fresh ..	1	..	1	..
Meat, Manufactured ..	38	2	5	..
Meat, Sausages ..	278	93	11	3
Milk	471	14	17	..
Milk, Breast ..	..	..	12	..
Milk, Condensed ..	1	..	..	..
Miscellaneous ..	6	..	45	..
Miscellaneous, Industrial Hygiene Branch	..	..	155	..
Oatmeal	5	..	..	..
Oatmeal, Flaked ..	1	..	..	..
Oil, Olive	1	..	..	..

SAMPLES SUBMITTED, ETC.—*continued.*

Sample.	A.		B.	
	Number Sub-mitted.	Adul-terated or not Genuine.	Number Sub-mitted.	Adul-terated or not Genuine.
Oil, Paraffin	1	..	..	..
Pepper	2	..	..	..
Sauce, Tomato ..	11	..	..	..
Sauce, Worcestershire, &c.	3	..	..	..
Spice, Ground ..	1	..	..	..
Spice, Mixed ..	2	..	..	..
Spirits, Brandy ..	..	..	1	..
Spirits, Schnapps ..	..	..	2	1
Spirits, Whisky ..	..	..	2	1
Sugar	2	..	..	..
Tea	16	..	..	..
Vegetables	2	..	..	..
Vinegar	20	..	..	..
Water	11	..	95	..
Wine	..	..	4	1
Totals ..	1,111	126	522	10

Total number of samples submitted ..		1,633
Number adulterated or not genuine ..	136	
Additional samples analysed for other Departments :—		
Milk	370	
Cream	2	
	—	372
Total Number of Samples Analysed ..		2,005

W. R. JEWELL, M.Sc.,
Government Chemist.

REPORT OF THE PUBLIC HEALTH BACTERIOLOGICAL LABORATORY FOR YEAR 1952.

The number of examinations, 70,989, showed a rise of ten per cent. over that of 1951, resulting from an increase in every section of the work of the laboratory ; particularly notable was the increase in the tally of throat swabs and faecal specimens submitted as a routine before admission to institutions, such as maternity and children's homes : this is a wise measure designed to prevent the occurrence of intramural epidemics. The branch laboratory for tuberculosis also made a substantial contribution to the increase in numbers, as well as extending its work on drug sensitivity determinations.

Half-way through the year Dr. Wilson left for England, and Dr. Ormerod assumed the duties of Assistant Director.

During the first nine months of the year, Dr. S. Aniker of the Public Health Institute, Mysore, India, was a guest of the Department of Bacteriology under the Columbo Plan, and spent a large part of his time in the laboratory acquiring information which should be of value on his return to India.

In February, the section concerned with the serology of venereal disease moved from the University Department of Bacteriology to new quarters in the old Walter and Eliza Hall Institute, by kind permission of the Committee of the Queen Victoria Hospital. In its new situation the Wassermann Laboratory is very close to the V.D. Clinic, but the geographical separation from the Department of Bacteriology is, in some ways, inconvenient.

Work was begun at Fairfield on a new laboratory and animal house for the Tuberculosis Branch, because the rooms occupied at the Mint-place Annexe will be required by the Cancer Institute in 1953. The laboratory is to be housed in part of an empty ward kindly made available by the Committee of the Isolation Hospital ; it is in close proximity to the hospital's own laboratory : the animal house is being built in brick adjacent to the one already in existence and it is hoped that the move will take place early next year.

During the year, there were no major outbreaks of infectious disease, but the almost continuous drip of cases of such infections as diphtheria, typhoid, and salmonellosis is a warning against complacency. An explosive outbreak of food poisoning in Rochester during the time of the local show gave rise to some alarm in the district ; it was shown to be due to infection of commestibles with staphylococci ; phage typing of staphylococci isolated from faeces of a case, from samples of the food suspected, from milk and from a number of food handlers, which was kindly carried out by Dr. Phyllis Rountree in Sydney, showed that one of those who helped to prepare the banquet was responsible but that the milk and a number of other food handlers carrying other types of staphylococci were, in this particular instance, blameless : this outbreak was the first reported in Australia in which the phage typing of staphylococci successfully delineated the source and path of infection. From its position in the University, the Public Health Laboratory is particularly well placed to obtain the co-operation of workers elsewhere who have experience in such specialized techniques, and it is able to offer to others a quid pro quo in such methods as phage typing of typhoid bacilli.

Work continued on the development of various techniques recently adopted such as the antiglobulin test for brucellosis and the use of fluorescence microscopy in diagnosis of tuberculosis, and constant efforts are made to utilise the routine material for original investigation and to apply the fundamental work which goes on in all departments of the University to current public health problems.

REPORTS OF DISTRICT HEALTH OFFICERS 1952.

CENTRAL HEALTH AREA.

(*a*) Metropolitan Staff comprised—

Senior Health Officer ..	Dr. R. J. Farnbach
District Health Officer	Dr. E. F. Mackenzie
District Health Inspector	Mr. K. Holland
District Health Inspector	Mr. J. Leffers
Health Inspector ..	Mr. E. Gore
Health Inspector .	Mr. K. Hutchinson
Sister D. A. Dudley	
Sister A. C. S. Duffy	

(*b*) Number of Municipal districts :—

Cities	30
Boroughs	1
Shires	9
	40

There was no change in the constitution of the Municipalities forming the Health Area, during 1952.

(*c*) Population 1,494,598

A steady increase in population continues in the area covered by the district health staff. The interim estimate has been placed now as high as one and one-half million.

On the other hand, as the Statistical Metropolitan Area is somewhat smaller than the Health Area, there appears to be a discrepancy in population figures.

The number of people in the Statistical Metropolitan Area is now 1,393,000. It is proposed to adjust the Health Area, to coincide with the Statistical Area as far as possible.

(*d*) Size of Area .. .. 1,305 sq. miles.

During 1952, the approximate number of people per square mile was 1,145, or 1·8 persons per acre.

(*e*) Number of Medical Officers of Health.

With few exceptions, part-time Medical Officers of Health attend to the needs of the separate municipalities contained in the Health Area. Some 46 are so engaged.

Although the demands on their time in the control of infectious disease cases is much less today than in the past, the work of providing immunization against diphtheria and whooping cough, and vaccination against small-pox is exacting.

The district health staff provide assistance in these matters where necessary.

Recommendations made by Medical Officers of Health to Councils are all noted by the Department's officers. Complaints and suggestions in the monthly reports are investigated throughout the year. In many instances assistance is rendered to the Medical Officer in order to obtain immediate municipal action.

The Annual Report contains in most cases a summary of the work carried out by the Health Inspector.

Chief recommendations made during 1952 concern temporary housing, defective drains, and immunization procedures.

(*f*) Number of Health Inspectors 68
Number of Groups 3

All these men are well qualified to carry out their duties. The majority show great interest and activity in their work.

The number employed is the same as in 1951, even though the population has increased. It will be necessary it seems for several municipalities to employ additional inspectors, if the public are to be provided with an adequate health inspection service.

NOTIFICATION OF INFECTIOUS DISEASES.

The incidence of the more important diseases is shown in the following figures :—

Disease.	1951.	1952.
Diphtheria	120	172
Scarlet Fever..	551	950
Puerperal Fever	Nil	Nil
Cerebro-spinal Meningitis ..	59	119
Tuberculosis	723	942
Exudative Pleurisy	11	9
Erythema Nodosum	15	28
Typhoid Fever	7	8
Dysentery—		
Amoebic	18	25
Bacillary	59	90
Poliomyelitis	125	140
Rubella*	132	1,211

* Notifiable part 1951.

Other diseases reported include—

Tetanus ..	4 (1)	Brucellosis	12 (3)
Hydatid ..	5 (2)	Malaria ..	2 (3)
Leprosy ..	2 (2)		

Figures in brackets refer to 1951.

The following diseases which were declared notifiable during 1952 occurred as follows :—Acute Rheumatism 13, Chorea 1, Whooping Cough 59, Diarrhoea of 48 hours' duration in children under 2 years of age 18, Infective Hepatitis 19, Leptospirosis 3.

COMMENTS.

Diphtheria cases number 172—this is still far too high and shows an increase of 52 over 1951 figures. Two outbreaks of moderate importance occurred, each was checked by immunization. The organisms concerned were Mitis Johnston and Gravis II. The avirulent Mitis Wallace was also reported.

Scarlet fever has been troublesome in several municipalities. It has been noted that although the use of anti-biotics tends to modify the clinical course, the infectivity of the patient may not be reduced. Alternatively, the case is liable to reinfection on return to the infected environment.

Cerebrospinal fever cases at 119 showed an increase over the 59 in 1951 ; these figures may be compared with the 565 cases in the State in 1942.

Rubella notifications were received over the whole year ; the cases amounted to 1,211. This figure will be followed with interest as it is now a basis upon which to work in estimating the extent of the problem of congenital malformations.

Tetanus cases, although only 4 in number, have been considered with some concern because of the high mortality. It is proposed to provide immunization for children on a limited scale during 1953.

Leprosy cases, again two in number, both contracted abroad, indicate the need for providing treatment and hospitalization on a permanent basis. Medical practitioners should be alert for the early signs of this disease.

Typhoid fever cases, although only few in number, are all carefully investigated. The milk-borne outbreak in 1943 when 490 cases occurred, is not likely to be experienced again, as pasteurized milk supplies are increasingly available in the metropolitan area.

Whooping cough figures are available for only portion of the year. It is believed that the number of cases is not large, but the distressing nature and danger of this disease is a challenge to the immunization facilities.

Brucellosis, leptospirosis, and hydatid disease were all present in 1952. Special work has been carried out on each of these diseases.

IMMUNIZATION FIGURES.

Diphtheria two inoculations	30,059
Whooping cough courses	7,396
Smallpox vaccination	13,321

Immunization was carried out in every municipality; some 30,000 children were given two inoculations, mainly with P.T.A.P. Diphtheria prophylactic.

Reactions reported were very few. It is estimated that some 60 per cent. of school children are immune.

HEALTH INSPECTION SERVICES.

The following table gives a summary of the work carried out by the inspectors on the staff.

Inspections.

Abattoirs	118
Bakehouses	42
Boarding-houses	18
Camps	3
Cattle saleyards	22
Butchers	126
Dairies	45
Eating-houses	21
Enquiries (investigations)	428
Factories	78
Grocers	43
Garbage depots	186
Hotels	15
Markets	36
Nightsoil depots	21
Offensive trades (other than abattoirs)	91
Public buildings (including racecourses and football grounds)	33
Sanitary (including trade wastes)	209
Shops (various)	94
Vehicles	35

Investigations included enquiries into :—

> Meat transport, bread handling, smoke nuisances, flock manufacture, poultry killing, tallow manufacture, septic tank systems, swimming baths chlorination, garbage disposal, paint and colour manufacture, aerodrome facilities.

Enquiries into labelling and quality of foods, drugs, and substances were made and samples of the following taken :—

> Cream, milk, meat, tomato paste, tomato juice, sugar, coffee, water, summer drinks, fish, children's paints and colours, flock, consignments of meat, fish, walnuts, fruit pulp, fruit juice. Smallgoods considered unfit for human consumption were destroyed, and one unbranded calf was seized.

The above inspections and investigations are mostly initiated by the Department, especially where the problem is likely to extend beyond municipal boundaries.

In other cases assistance has been available to the health inspectors in the numerous individual municipalities.

Recorded inspections do not include enquiries answered by phone or personal interview.

The staff of District inspectors is not as large as that employed in some single municipalities.

There is a tendency for municipal health inspectors where the work becomes a physical impossibility to look to the District staff for assistance. Such assistance is always forthcoming, but it only serves to obscure the underlying defect that more qualified inspectors are required in the metropolitan municipalities.

Meat Inspection.

The majority of the metropolitan area is now provided with meat inspected and branded under the supervision of the council meat inspectors.

Unbranded meat is available in the Shires of Broadmeadows, Whittlesea, Eltham, Lilydale, and Ferntree Gully. The meat area is extending gradually in keeping with the advance in trade requirements.

Sewerage Areas.

The Melbourne and Metropolitan Board of Works provides water-borne sewerage for 329,872 houses with an estimated population of 1,311,600 on 30th June, 1952.

Another 7,250 persons are served by the Dandenong Sewerage Authority.

Septic Tanks.

Some 10,432 septic tanks are in operation.

This figure includes an increasing number of septic closets which provide a satisfactory service without regular flushing. Effluent disposal in both cases is by subsoil absorption systems.

Nightsoil Services.

Depots in operation number 9, but the number of pans serviced has increased to 48,729.

Water Supply.

A high standard of purity is maintained in the reservoirs and aqueducts provided by the Melbourne and Metropolitan Board of Works.

The three systems in operation are the Yan Yean, the Maroondah, and the Upper Yarra. Deliveries of water per day may amount to—

	Gallons.
Yan Yean	9,000,000
Maroondah	50,000,000
Upper Yarra	60,000,000
Total	119,000,000

Another portion of the Metropolitan Area about Dandenong and Chelsea, is supplied with water from the State Rivers and Water Supply Commission works.

Offensive Trades.

Abattoirs and slaughter-houses	22
Blood albumen factories or blood-boiling or blood-drying works	Nil
Blood-boiling or burning or grinding or milling works	4
Bone manure depots	1
Cattle saleyards	5
Fat-extracting or melting or rendering works	175
Fellmongeries or wool-scouring or wool-washing works	30
Fish curing	6
Flock shoddy or mungo factories	12
Garbage, refuse depots	35
Glue or size factories	2
Gut-cleaning or gut-scraping or gut-drying or gut-spinning works	10
Knackers' yards	6
Manure works	5
Marine stores	35
Meat boiling-down works (bones, blood offal)	5
Nightsoil depots	10
Piggeries	59
Pan changing, storing depots	3
Poultry-killing or cleaning or dressing	53
Rag-picking or rag-sorting	16
Soap or candle works	15
Soup-drying works	Nil
Stores for skins, hides, hoofs, hair, bones	26
Tripe-boiling establishments	4
Total number of offensive trades	539

This is a small increase over the total figure for 1951, i.e., 509.

Food Sample Analysis.

The Health Act requires every Council to submit during the year three samples for each thousand persons of the population.

	1951.	1952.
Samples required	4,307	4,533
Samples taken	4,283	4,354
Samples found adulterated	307	305
Vendor not prosecuted by Council	30	54

Adulteration is not found in practice outside manufactured or processed meats and in milk. On the other hand, some inspectors do not, as a rule, take a wide variety of samples.

In 54 cases the Council did not prosecute the vendor. This does not indicate neglect of responsibility in all instances, as some of the breaches of the regulations were minor. However, in only 30 instances in 1951 did this occur.

Prosecutions which were undertaken produced £2,387 in fines, and legal costs. It is noted that when heavy fines are inflicted through municipal activity there is an improvement in the quality of food supplied to the public.

Boarding Houses.

These premises are registered with the Council.

	1951.	1952.
Registered number	1,744	1,747
Beds	30,472	31,190

An enormous number of people are living in apartment houses, very often under sub-standard conditions. There is no necessity for the owner to register this type of house, consequently inspectors have practically no power to help improve conditions for the occupants.

CONCLUSION AND RECOMMENDATIONS.

The District Health Staff should be increased to cope with the increase in population.

For the same reason several municipalities require extra health inspectors or full-time inspectors.

More attention to the control of diphtheria is necessary; this may be achieved by a more systematic system of immunization.

One Medical Officer of Health considers that all immunization should be carried out by the Department of Health.

Food samples submitted for analysis fall somewhat short of the number required by the Health Act. This may be due to the reluctance shown by some Councils in taking a firm stand against vendors of adulterated food.

E. FORBES MACKENZIE,
District Health Officer.

EASTERN HEALTH AREA.

District Health Officer	Dr. P. L. Langton-Lockton.
District Health Inspector	Mr. D. L. Lyall.
District Tuberculosis Nurse	Sister A. O'Keefe.

The Eastern Health Area is comprised of 27 municipalities with a total population of 196,597, and embraces an area of 17,146 square miles.

The area is divided into six Health Groups each employing Medical Officers of Health and a Health Inspector, five separate municipalities each employing a Medical Officer of Health and a Health Inspector, and one municipality employing a Medical Officer of Health only.

Infectious Diseases Statistics.

The following notifications were received for the year:—

Disease.	Number of Cases Notified.
Diphtheria	5
Scarlet fever	229
Typhoid	3
Tuberculosis	59
Poliomyelitis	37
Dysentery bacillary	2
,, amoebic	3
Puerperal fever	1
Cerebro-spinal meningitis	20
Tetanus	1
Pertussis	84
Rubella	120
Erythema nodosum	7
Chorea	1
Acute rheumatism	10
Infective hepatitis	28
Encephalitis	3
Brucellosis	1

GIPPSLAND—B.C.G. VACCINATION CAMPAIGN, OCTOBER, 1952.

——	Total Tested.	Number Negative.	Number Positive.	Absent.	Non-Consent.
Maffra ..	129	111	18	6	6
Traralgon ..	164	147	17	20	9
Mirboo North	100	97	3	12	7
Yallourn ..	748	639	109	33	50
Warragul ..	436	392	44	64	43
Sale ..	656	564	92	32	34
Orbost ..	78	68	10	6	3
Bairnsdale ..	495	465	30	21	22
Yarram ..	167	149	18	10	9
Foster ..	135	122	13	16	8
Korumburra..	142	135	7	22	2
Leongatha ..	191	170	21	28	12
Wonthaggi ..	321	294	27	33	28
Totals ..	3,762	3,353	409	303	233

Percentage of Positive reactors = 10·87.
Percentage of Consent rate = 94·6.

TUBERCULOSIS VISITING NURSE.

Number of homes visited	436
Number of patients visited	368
Number of contacts visited	781
Number of sputum samples taken	2
Number of X-rays ordered	124

DISTRICT HEALTH INSPECTOR.

The district health inspector conferred with executive officers of various municipalities on health matters concerning their respective municipalities, advised and assisted health inspectors throughout the Health Area and attended to all matters referred to him from head office :—

Inspections carried out :—

Abattoirs	166
Bakehouses	62
Boarding houses	22
Butchers	56
Camps	90
Cattle saleyards	16
Dairies	2
Eating houses	110
Factories	12
Grocers	62
Hotels	56
Inquiries	263
Markets	2
Offensive trades	134
Public buildings	8
Sanitary	168
Shops	80
Vehicles	37
	1,346

Food Condemned.

——	Number.	On Account of—
Livers—		
Sheep	188	Hydatids
Sheep	71	Fluke
Ox	5	Hydatids
Ox	3	Fluke
Other Foods.		
Chocolates	2 lb.	Tainted
Chocolates	27½ lb.	Mouldy
Meal	123 lb.	Weevil and rat contaminated
Fish	1 case	Deteriorated
Coconut	12 lb.	Rat contaminated
Rabbits	6	Decomposing
Vegetables, fresh, various	4 bags	Decomposing
Fruit, fresh, various ..	14 cases	Decomposing
Samples Taken.		
For investigation—		
Ex public supplies ..	26	Fluorine
	4	General standard
Effluent	3	Chemical

MEAT AREAS.

Meat areas exist at Sale, Morwell, Yallourn, Traralgon, Mornington, Frankston and Hastings, and Flinders.

WATER AND SANITATION.

(*a*) Sewerage areas exist at Bairnsdale, Warragul, Morwell, and Mornington. Works are partly completed at Maffra, Traralgon, Leongatha, Yallourn, and Moe.

(*b*) There are 39 nightsoil depots in the area, 4,020 septic tanks, 25,335 pan services,- and 295 chemical closets.

(*c*) State Rivers and Water Supply Commission :—
Berwick, Cranbourne, Frankston, Stratford, Bass, Flinders, Mornington.

Water Trusts exist in the following places :—
Yarram, Bairnsdale, Drouin, Korumburra, Maffra, Mirboo North, Morwell, Moe, Trafalgar, Rosedale, Sale, Toora, Foster, Traralgon, Warragul, Wonthaggi, Leongatha, Yallourn (S.E.C.).

OFFENSIVE TRADES.

Abattoirs.. ..	101 of which 18 are in 9 meat areas
Nightsoil depots ..	39
Garbage depots ..	33
Miscellaneous ..	140 (which includes cattle saleyards, hide and skin stores, marine yards, fat rendering and tripe, knackers' yards and poultry dressing).
	313

FOOD SUPPLIES.

During the year the various municipalities exercised the following supervision :—

Samples taken	490
Number adulterated	29
Number of legal actions taken ..	15

DIPHTHERIA IMMUNIZATION.

Schick test	6,517
Positive	2,348
Negative	4,077
P.T.A.P. (2 doses)	4,748
P.T.A.P. (1 dose)	1,382
A.P.T. (2 doses)	163
A.P.T. (1 dose)	81

PERTUSSIS IMMUNIZATION.

536

SMALLPOX VACCINATION.

0–7 years	1,792
Adults	2

POPULATION.

The population in the area has continued to increase and the consequent development has resulted in a steady increase in the volume of health work in many of the municipalities.

PHILIP LANGTON-LOCKTON,
District Health Officer.

WESTERN HEALTH AREA.

District Health Officer	Dr. N. K. Dougan.
District Health Inspector	Mr. R. W. Pearce.
Chest Clinic Medical Officer	Dr. D. W. L. Seward.
Chest Clinic Sister	Sister J. Brown.
Chest Clinic Assistant	Mrs. J. Waterworth.
District Visiting Sister, Tuberculosis	Sister D. P. Rogers.

The Western Health Area comprises 34 Municipalities (6 Cities, 2 Towns, 3 Boroughs, and 23 Shires) with a total population of 209,502 and an area of 16,412 square miles.

There are 39 Medical Officers of Health and 15 Health Inspectors. Areas without Health Inspectors are the Boroughs of Port Fairy and Koroit, and the Shires of Warrnambool and Belfast.

NOTIFIABLE INFECTIOUS DISEASES—1952.

The following notifications were received :—

Disease.	Number of Cases Reported.
Diphtheria	19
Scarlet fever	65
Typhoid fever	3
Tuberculosis	56
Poliomyelitis	31
Puerperal fever	3
Hydatids	10
Tetanus	..
Cerebro-spinal meningitis	20
Encephalitis	4
Dysentery (amoebic)	2
Whooping cough	27
Rubella	167
Acute rheumatism	3
Infantile diarrhoea	1

CHEST CLINIC, GEELONG—ACTIVITIES, 1952.

New cases applying for admission	264
Re-attendance of patients	1,471
Re-examination of patients	557
Cases transferred to sanatorium	20
Sanatorium cases transferred to clinic	25
Contacts of infecting cases	56
Contacts examined	141
Contacts re-examined	557
Contacts found to have tuberculosis	10
Home visits by clinic sister	180
Pneumothorax refills	8
X-ray examinations	1,150
Screen examinations	156
Sputum examinations	367
Gastric lavages done	20
Total attendances, old and new cases	1,893
Coryza vaccine injections	3

WORK OF T.B. VISITING NURSE.

Throughout the year, until her retirement in November, the visiting tuberculosis sister, Miss D. P. Rogers, visited the homes of cases in the Western Health Area. She discussed the problems of tuberculosis with the families, interviewed contacts, arranged for X-ray examinations and Mantoux testing, and generally gave advice on tuberculosis and the amenities and pensions available to the sufferers.

DIPHTHERIA IMMUNIZATION.

Immunization was carried out in 19 Municipalities and some 7,000 children were immunized. In addition, many children were immunized privately by their own doctors.

SMALL POX VACCINATION.

Campaigns were carried out by 4 Municipalities and 1,107 children were vaccinated.

DISTRICT HEALTH INSPECTOR.

Inspections carried out :—

Abattoirs	78
Bakehouses	42
Boardinghouses	36
Butchers' shops	60
Camps	20
Cattle saleyards	6
Dairies	9
Eating houses	80
Enquiries	10
Factories	52
Grocers	26
Hotels	46
Markets	8
Offensive trades	62
Public buildings	10
Sanitary inspections	12
Shops	29
Vehicles	30

On the 12th August, 1952, the former district health inspector, Mr. L. N. Strahle, died suddenly at Colac. He had served in the Western District for ten years and his death came as a great shock to his many colleagues. He will long be remembered throughout the whole area for his efficiency, kindliness, and tact.

MEAT AREAS.

Meat Areas exist in—

(*a*) the Cities of Geelong, Geelong West, Newtown and Chilwell, Hamilton, Ararat, and Warrnambool ;

(*b*) the Towns of Colac and Portland ;

(*c*) the Borough of Queenscliffe ;

(*d*) portions of the Shires of Corio, South Barwon, Warrnambool, Colac, and Portland.

SANITATION.

The following Sewerage Authorities exist in the Western Health Area :—

Geelong Waterworks and Sewerage Trust.
Warrnambool Sewerage Authority.
Ararat Sewerage Authority.
Colac Sewerage Authority.
Hamilton Sewerage Authority.
Portland Sewerage Authority.
Queenscliffe Sewerage Authority.
Lorne Sewerage Authority.

SEPTIC TANKS AND CHEMICAL CLOSETS.

The number of septic tanks in the area has increased during the year and now stands at 1,830. In addition, there are 134 chemical closets.

WATER SUPPLIES.

There have been no additions to State Rivers and Water Supply Districts or to Waterworks Trusts, as listed in the 1950 Report. However, in most cases the population supplied has increased in each district.

OFFENSIVE TRADES.

Abattoirs	77
Fat extracting, melting, or rendering works	35
Fellmongeries, woolscouring, or wool-washing works	58
Gut-cleaning, scraping, drying, or spinning works	8
Knackers' yards	2
Marine stores	9
Piggeries	16
Poultry killing, cleaning or dressing	5
Rag-picking or sorting	1
Soap or candle works	1
Stores for skins, hides, hoofs, hair or bones	35
Meat boiling-down works (bones, blood offal)	27
Nightsoil depots	26
Garbage, refuse depots	34
Cattle saleyards	54

FOOD SAMPLES.

Samples taken in area	474
Samples found to be adulterated	27
Samples found to be adulterated, and in which no action was taken by Council	4

NOEL K. DOUGAN,
District Health Officer.

NORTHERN HEALTH AREA.

District Health Officer	Dr. W. J. Stevenson.
District Tuberculosis Officer (Bendigo)	Dr. K. G. Kerr.
District Health Inspector	Mr. D. L. Lyall.
District Visiting Sister	Sister M. Trigg.
Chest Clinic Sister (Bendigo)	Sister E. Neilson.

During the year Mr. Lyall was appointed to another area and the position of District Health Inspector was filled by the appointment of Mr. D. K. Hutchison.

NUMBER OF MUNICIPAL DISTRICTS.

Cities	2
Towns	1
Boroughs	3
Shires	18
	24

Population of Area, 147,008.
Size of Area, 21,863 square miles.
Medical Officers of Health, 29.

HEALTH INSPECTORS.

Allocation of Inspectors.

3 in Groups ;
2 in Shires from Groups outside Area ;
2 in Bendigo City ;
1 in Mildura City ;
1 in Mildura Shire ;
1 in Swan Hill Borough.

INFECTIOUS DISEASES.

Statistics for Year ending 31*st December*, 1952.

Disease.	Number of Cases.
Diphtheria	7
Scarlet fever	34
Typhoid	4
Tuberculosis	50
Cerebro-spinal meningitis	11
Poliomyelitis	10
Rubella	56
Encephalitis (all forms)	4
Exudative pleurisy	5
Hydatids	1
Polioencephalitis	..
Tetanus	3
Brucellosis	3
Acute rheumatism	1
Rheumatic fever	2
Scarlatina	2
Infective hepatitis	5
Amoebrasis	1

TUBERCULOSIS VISITING NURSE.

The services of Sister Trigg were available only for the latter half of the year.

The following is a summary of her work over a period of six months :—

Number of homes visited	306
Number of patients visited	207
Number of contacts visited	370
Number of X-rays ordered	67

DISTRICT HEALTH INSPECTOR.

Inspections carried out :—

Abattoirs	43
Bakehouses, pastrycooks, &c.	34
Boarding houses	14
Butchers	56
Dairies	7
Eating houses, cafes, &c.	54
Enquiries (investigations, &c.)	86
Factories (food), butter, cheese, bacon, cordial	18
Grocers	54
Hotels, wine saloons, &c.	49
Offensive trades	77
Public buildings	18
Sanitary depots	24
Shops (various)	31
Vehicles (delivery)	12
Racecourses, showgrounds, recreation grounds, swimming baths, camping grounds	22
Septic tanks	38
Drainage	14
Sundry inspections	31
Iceworks	7
Water supplies	14
Water samples (chemical and bacterial)	13
Water samples (fluorine)	25
Food samples	4

Food Samples.

Number of samples taken	357
Number of samples adulterated	20
Number of adulterated samples in which no action taken	9
Convictions	8
Warnings	3

Food Condemned.

12 lb. sultanas.
10 lb. ginger.
141 lb. pork (unbranded) found to be unfit for human consumption.
5 cases crayfish.
2 cases pineapples.
1 case fruit.
11 tins fruit and meat (blown).
3 lb. sausages.
1 tin plum pudding.
80 lb. fruit and vegetables.

OFFENSIVE TRADES.

Offensive Trade.	Number in Area.
Abattoirs	51
Gut cleaning	1
Knackers' yards	3
Marine stores	4
Piggeries	36
Skin stores	20
Cattle saleyards	38
Garbage depots	33
Fat extraction	9
Bone boiling down	2
Poultry killing	4

MEAT AREAS.

Meat Area.	Population Served.
Bendigo—including Eaglehawk (Borough) and Kangaroo Flat (Township), plus a small adjoining area of the Parish of Mandurang	36,140
Mildura	24,250

SEWERAGE AREAS.

Existing.

Bendigo—Bendigo Sewerage Authority.
Kerang—Kerang Sewerage Authority.
Mildura—Mildura Sewerage Authority.
Swan Hill—Swan Hill Sewerage Authority.

Proposed.

Charlton—Charlton Sewerage Authority.

SEPTIC TANKS.

Number in area, 895.

CHEMICAL CLOSETS.

Number in area, 30.

NIGHTSOIL DEPOTS AND SERVICES.

Number in area, 46 (11,544 pans).

WATER SUPPLIES.

Birchip Urban Waterworks Trust.
Elmore Water Trust.
Inglewood Water Supply District.
Kerang Waterworks Trust.
Mildura Urban Water Trust.
Heathcote Waterworks Trust.
St. Arnaud Borough Waterworks Trust.
Murrayville Waterworks Trust.

State Rivers and Water Supply Commission supplies water to a large number of townships in Northern Area.

W. J. STEVENSON,
District Health Officer.

NORTH-EASTERN HEALTH AREA.

District Health Officer	Dr. E. J. Crowe.
District Health Inspector	Mr. E. S. A. Wing.
District Tuberculosis Nurse	Sister J. Hevey.

The North-Eastern Area comprises 35 municipalities, made up of 1 city, 3 boroughs, and 31 shires. The estimated population is 152,410, living in an area of 17,728 square miles. There were 38 Medical Officers of Health in the area, and 10 Health Inspectors working for individual municipalities and in 8 Health Groups.

INFECTIOUS DISEASES.

The following shows the notifications of infectious diseases for the year, with the previous year's figures for comparison :—

Disease.	1952.	1951.
Diphtheria	38	32
Scarlet fever	59	51
Typhoid	1	1
Tuberculosis	31	31
Poliomyelitis	30	119
Cerebro-spinal meningitis	20	12
Rubella	114	21
Dysentery, amoebic	3	1
Dysentery, bacillary	5	3
Encephalitis	5	3
Brucellosis	4	2
Hydatid disease	2	1
Puerperal fever	2	..
Tetanus	2	..
Whooping cough	29	..
Acute rheumatism	1	..
Erythema nodosum	2	..
Infantile diarrhoea	10	..
Exudative pleurisy	1	..
Infective hepatitis	2	..
Chorea	5	..
Helminthiasis	1	..

The relatively high incidence of diphtheria may be partially accounted for by its notification on clinical diagnosis from the Mooroopna Hospital. Now that corrected notification lists are received monthly, future figures should be more accurate. Almost half the Rubella cases notified came from the Euroa Shire. These figures cannot be compared with those of the previous year as Rubella was made notifiable in August, 1951. In October there was a sharp outbreak of food poisoning in Rochester Shire, involving some 80 people who lunched at the town's Annual Show ; the outbreak was traced to a food preparer. In Kilmore, there was a small outbreak of Sonne Dysentery with a few confirmed cases in the Assumption College.

VISITING TUBERCULOSIS NURSE.

Sister Hevey visited tuberculosis cases and contacts and arranged for X-ray and sputum examinations. In addition, followed up Mantoux positive reactors and their contacts from the previous year's campaign.

Number of homes visited	285
Number of contacts visited	844
Number of X-rays ordered	482

CHEST X-RAY SURVEYS CONDUCTED—1952.

Shire.	Number X-rayed.	T.B. Abnormalities.		
		Proved or Possibly Active.	Healed or Quiescent.	Non-T.B. Abnormalities.
Beechworth	995	4	16	13
Bright	1,890	6	34	24
Broadford	674	2	13	13
Chiltern	429	2	5	4
Healesville	1,067	4	17	14
Numurkah	2,484	6	46	47
Rochester	848	2	19	18
Rutherglen	1,147	4	22	19
Seymour	1,885	6	40	33
Tallangatta	811	2	18	16
Tungamah	1,569	3	28	25
Upper Murray	1,074	3	20	15
Upper Yarra	1,501	4	32	29
Waranga	602	2	8	7
Wodonga	1,618	6	29	22
Yackandandah	1,821	6	34	29
Yarrawonga	1,603	6	29	24
Totals	22,018	68	410	352

DISTRICT HEALTH INSPECTOR.

During the year the district health inspector assisted in the organization of immunizing campaigns, attended conferences with the district health officer, helped in the investigation of infectious disease outbreaks, conducted routine food and water sampling, and in addition to attending to complaints and enquiries, carried out the following routine inspections:—

Abattoirs and slaughterhouses	79
Bakehouses	14
Boarding houses	22
Butchers	40
Camping grounds	20
Cattle saleyards	8
Dairies	6
Eating houses	41
Enquiries and investigations	29
Factories	12
Grocers' shops	9
Hotels	54
Markets	1
Offensive trades (excluding abattoirs)	48
Private hospitals	2
Public buildings	15
General sanitary	4
Shops (various)	13
Vehicles	8
Racecourses	3
Showgrounds	10
Sportsgrounds	3
Cemeteries	3

Samples collected:—

Water.		Milk.	Other Foods.
Bacteriological.	Chemical.		
8	12	7	17

PROSECUTIONS.

Thornton	Butcher; excess preservatives in sausage meat; fined £10.
Myrtleford	Butcher; excess preservatives in sausage meat; fined £8.
Yarra Junction	Butcher; Feeding raw offal to pigs; fined £5. Improper disposal of offal; fined £5. Dirty premises; fined £5. Exposure of food to flies; fined £5.

Witness for Prosecution.

Nagambie	Butcher; unregistered slaughter-yard; fined £5.
Westburn	Butcher; feeding raw offal to pigs; fined £3.
Shepparton	Cafe; dirty premises; fined £20.

Food Condemned.

Frozen fish; unwholesome.
Dried fruit; weevil infestation.

MEAT AREAS.

Shepparton	Borough and adjoining portion of the Shire.
Rodney	Mooroopna, Tatura, and central portion of Rodney Shire.
Wangaratta	Wangaratta Borough and adjoining areas of the Shire of Wangaratta and Oxley.
Echuca	The area of the Borough of Echuca and portion of Deakin Shire.
Kilmore	The area of the bacon factories in Kilmore Town.

The proposed construction of a municipal abattoir in Kyabram has been abandoned, but plans have been submitted for a private abattoir that comply with the requirements of Meat Supervision Regulations.

SANITATION.

Existing Sewerage Authorities: Benalla, Echuca, Shepparton, Kyabram, Wangaratta, Yarrawonga.

Proposed Sewerage Area: Beechworth, Euroa, Wodonga, Yea.

There are 2,199 septic tanks in the area, 53 registered nightsoil depots, and 39 garbage depots. Twenty-five municipalities have initiated a garbage clearance service to cover the whole or portions of their areas.

WATER SUPPLY.

There are 44 Trusts supplying water in this area, viz.:—

Alexandra
Avenel
Beechworth
Benalla
Bright
Broadford
Chiltern
Cobram
Corryong
Echuca
Euroa
Glenrowan
Healesville
Kiewa
Kilmore
Kyabram
Longwood
Mansfield
Marysville
Merrigum
Mooroopna
Murchison
Myrtleford
Nagambie
Numurkah
Rochester
Rushworth
Rutherglen
Seymour
Shepparton (Urban)
Shepparton (Rural)
Tallangatta
Tatura
Tongala
Tungamah
Violet Town
Wahgunyah
Wangaratta
Warburton
Wodonga
Yackandandah
Yarra Junction
Yarrawonga
Yea

During the year under review, 8 samples of water were collected for bacteriological examination, and 12 for chemical examination which included fluorine estimation.

OFFENSIVE TRADES.

Abattoirs and slaughter yards	87
Bone-boiling	1
Bone manure	1
Fat extraction and melting	27
Fellmongering and wool scouring	2
Gut works and casing	4
Knackers' yards	1
Manure works	1
Marine stores	2
Piggeries	18
Poultry killing	2
Skin stores	17
Cattle sale yards	49

DANGEROUS TRADES.

Nil.

FOOD SAMPLES.

Number taken	415
Number found adulterated	24
Number of prosecutions	16

In 3 cases prosecutions are pending; while in the other 5 the offenders were warned for first offences.

E. J. CROWE,
District Health Officer.

NORTH-WESTERN HEALTH AREA.

District Health Officer	Dr. N. J. Caldwell.
District Health Inspector	Mr. McCartney.
Visiting Tuberculosis Nurse	Sister Sheehan (resigned 4th June, 1953).
Tuberculosis Officer	Dr. G. T. James.
Tuberculosis Nurse	Sister J. Hall.

MUNICIPAL DISTRICTS.

Cities	2
Town	1
Boroughs	5
Shires	31
	39
Population	167,462
Area	14,479
Number of Medical Officers	44
Number of Health Inspectors	11

INFECTIOUS DISEASES.

In 1952 the following diseases were reported :—

Disease.	Number of Cases Reported.
Acute rheumatism	3
Cerebro-spinal meningitis	5
Diphtheria	3
Diarrhoea (under 2 years)	2
Dysentery amoebic	6
Dysentery bacillary	1
Encephalitis lethargica	4
Erythema nodosum	1
Infective hepatitis	31
Pertussis	8
Poliomyelitis	54
Rubella	114
Scarlet fever	32
Tuberculosis	42
Typhoid fever	2

DIPHTHERIA IMMUNIZATION.

Immunization was carried out in 28 municipalities and 6,009 children were immunized.

VACCINATIONS.

Vaccination against smallpox was carried out in seven municipalities and 436 children were vaccinated.

DISTRICT HEALTH INSPECTOR.

Abattoirs	52
Bakehouses	30
Boarding houses	26
Butchers' shops	60
Camps	6
Cattle sale yards	6
Dairies	3
Eating houses	63
Enquiries	10
Factories	5
Grocers	25
Hotels	36
Markets	4
Offensive trades	46
Public buildings	4
Sanitary inspections	2
Shops	16
Vehicles	20

MEAT AREAS.

	Approximate Population.
Ballarat City	40,850
Castlemaine	6,300
Daylesford	3,300
Horsham	7,000
Kyneton	Not yet in operation
Maryborough	6,800

WATER SUPPLY.

The following reticulated services are in operation :—

	Reticulated Service.
Arapiles	State Rivers and Water Supply Commission
Avoca	Sugar Loaf Reservoir
Ballarat City	Ballarat Water Commission
Ballarat Shire	Ballarat Water Commission
Bacchus Marsh	State Rivers and Water Supply Commission
Ballan	Ballan Waterworks Trust
Bulla	Sunbury Water Trust
Bungaree	Ballarat Water Commission
Buninyong	Ballarat Water Commission
Castlemaine	State Rivers and Water Supply Commission
Clunes	Newlyn Reservoir
Creswick	Newlyn Reservoir
Daylesford	Bullarto Reservoir
Dimboola	Wimmera Water Works
Donald	Lonsdale Scheme
Dunmunkle	Wimmera United and Murtoa Water Trust
Gisborne	Water Works Trust
Glenlyon	Hepburn Water Trust
Horsham	State Rivers and Water Supply Commission
Kaniva	Kyneton–Kaniva Water Trust
Kyneton	Kyneton and Malmsbury Water Trust
Lowan	Lowan Water Trust
Maldon	Kyneton and Malmsbury Water Trust
Maryborough	Evansford Reservoir
Metcalfe	Kyneton and Malmsbury Water Trust
Newham and Woodend	Woodend Water Trust
Newstead	State Rivers and Water Supply Commission
Ripon	Mount Cole Reservoir
Romsey	Romsey Water Trust
Sebastapol	Ballarat Water Commission
Stawell Borough	Grampians Supply
Stawell Shire	State Rivers and Water Supply Commission
Talbot	Evansford Reservoir
Tullaroop	Evansford Reservoir
Warracknabeal	Warracknabeal Water Trust
Wimmera	State Rivers and Water Supply Commission

OFFENSIVE TRADES.

Abattoirs	81
Bone (boiling, grinding)	2
Boiling-down works	8
Cattle sale yards	60
Fat-extracting (melting, rendering)	41
Fellmongering	4
Garbage depots	27
Gut cleaning, scraping, &c.	2
Knacker's yard	1
Marine stores	12
Nightsoil depots	47
Piggeries	30
Poultry killing	3
Rag picking	1
Skin store	19

DANGEROUS TRADES.

Nil.

FOOD SUPPLIES.

Number of samples taken	326
Number of samples adulterated	34
Number of samples adulterated in which legal action was taken	17

Various quantities of the following food were seized during the year by Council Health Inspectors :—

Blown tins
Bacon
Beef
Chocolates
Coconut
Fish
Mince meat
Mutton
Pork
Potatoes
Plums
Sausages
Toffee
Veal

SANITATION.

Sewerage Areas.

The following authorities are now operating :—

Ballarat Sewerage Authority.
Castlemaine Sewerage Authority.
Dimboola Sewerage Authority.
Horsham Sewerage Authority.
Kyneton Sewerage Authority.
Murtoa Sewerage Authority.
Nhill Sewerage Authority.
Warracknabeal Sewerage Authority.

Areas proclaimed but not yet operating :—

Maryborough Sewerage Authority.
Stawell Sewerage Authority.

Septic Tanks.

Number in area, 2,130.

N. J. CALDWELL,
District Health Officer.

REPORT OF THE FOOD STANDARDS COMMITTEE, 1952–53.

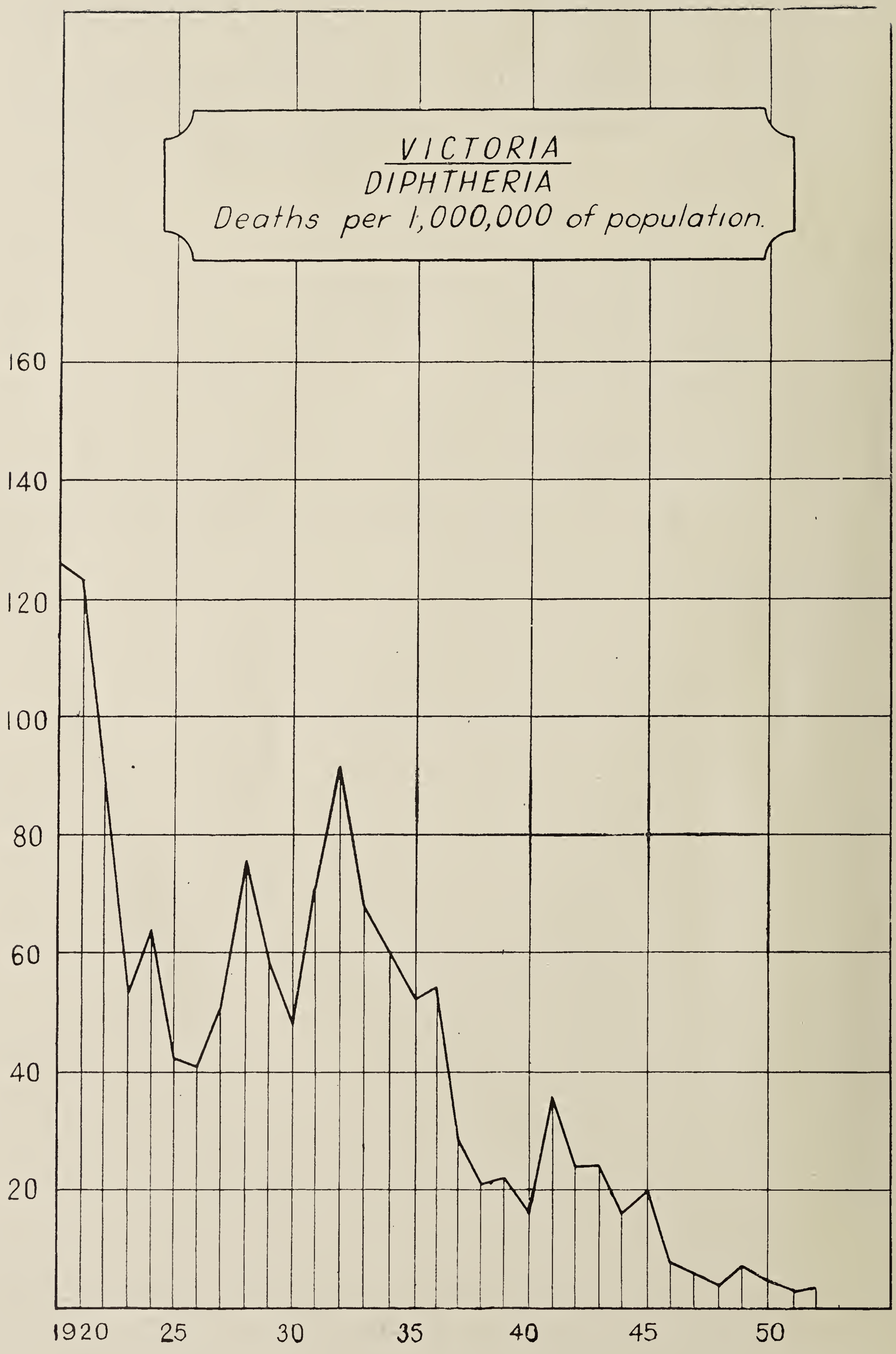
During the year 1952–53, four meetings of the Food Standards Committee were held.

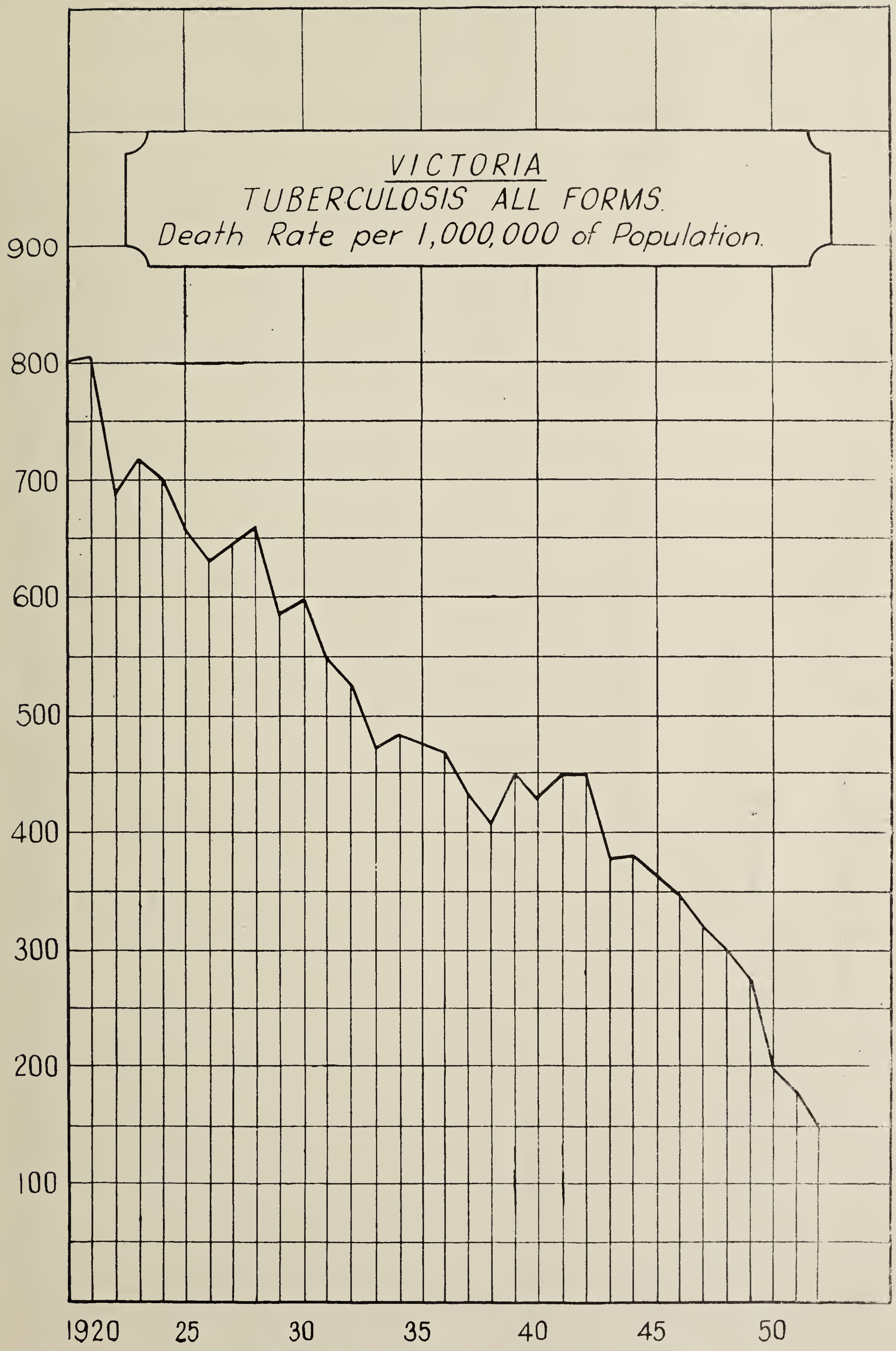
The following is a summary of the recommendations made for amendment to the Food and Drug Standards Regulations, all of which have been approved by the Governor in Council :—

(*a*) Revising the regulations governing the labelling of pasteurized milk and cream and cream preparations.

(*b*) Permitting the use of the colouring known as 737 Lissamine Green BNS.

(*c*) Amending the regulation governing the labelling of dried skim milk and dried separated milk.


VICTORIA
DIPHTHERIA
Deaths per 1,000,000 of population.
160
140
120
100
80
60
40
20
1920
25
30
35
40
45
50

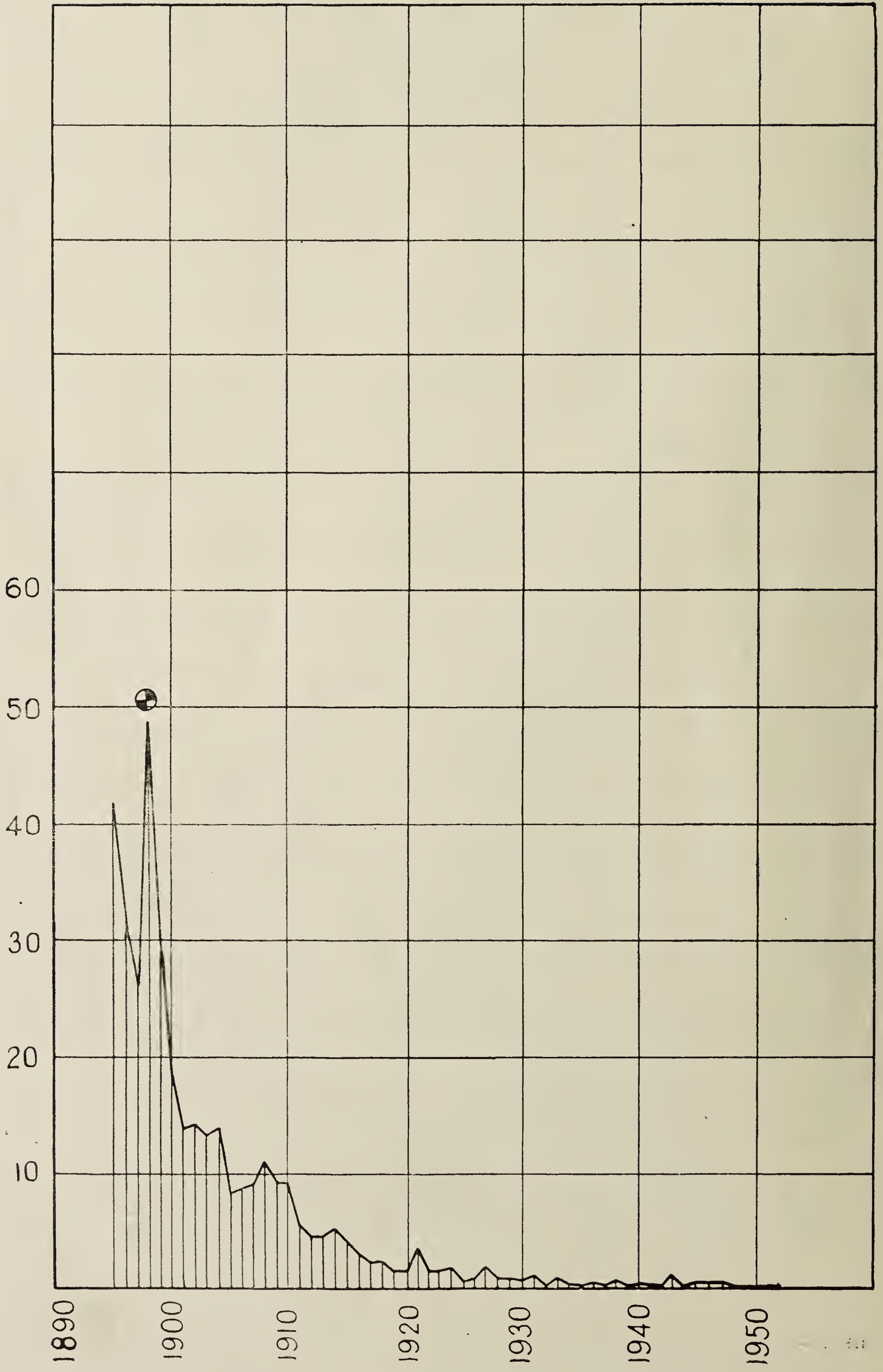

VICTORIA
TUBERCULOSIS ALL FORMS.
Death Rate per 1,000,000 of Population.
900
800
700
600
500
400
300
200
100
1920
25
30
35
40
45
50

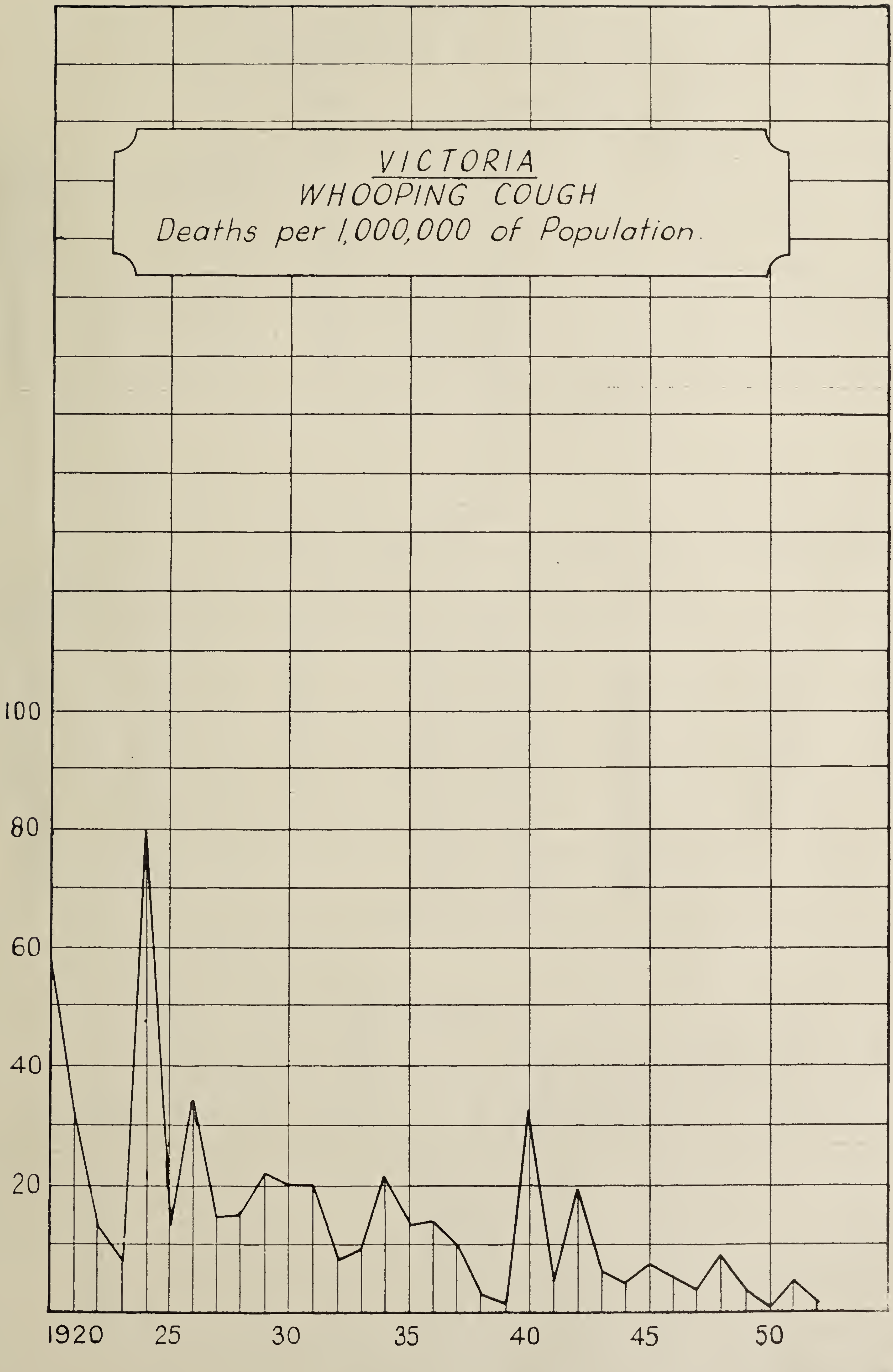
VICTORIA

TYPHOID FEVER

Death Rate per 100,000 of population.

Melbourne Sewerage Introduced. ◕




VICTORIA
WHOOPING COUGH
Deaths per 1,000,000 of Population.
100
80
60
40
20
1920
25
30
35
40
45
50

VITAL STATISTICS.

POPULATION AT 31st DECEMBER, 1952.

Victoria	2,356,823
Metropolitan Area	1,393,000

SUMMARY OF VITAL STATISTICS, VICTORIA, 1952.

Division.	Number of—				Rate per 1,000 of Mean Population.*			Infantile Mortality.
	Marriages.	Births.	Deaths.	Deaths under One Year.	Marriages.	Births.	Deaths	Deaths under One Year per 1,000 Births.
Greater Melbourne	..	27,933	14,189	612	..	20·21	10·27	21·91
Remainder of the State	..	25,805	9,133	586	..	27·08	9·59	22·71
Victoria	20,220	53,738	23,322	1,198	8·66	23·02	9·99	22·29

* Subject to revision.

BIRTHS.

The following table shows the birth rates from 1855 to 1952 :—

Period.	Average Annual Births.	Rate per 1,000 of Population.	Period.	Average Annual Births.	Rate per 1,000 of Population.
1855–59	17,154	38·49	1937	29,731	16·02
1860–64	24,060	43·29	1938	30,344	16·25
1865–69	25,963	39·77	1939	30,493	16·20
1870–79	26,971	34·60	1940	31,962	16·86
1880–89	30,113	31·45	1941	34,406	17·76
1890–99	34,310	29·37	1942	35,927	18·27
1900–09	30,655	24·92	1943	39,117	19·74
1910–19	33,800	24·27	1944	39,358	19·70
1920–29	35,457	21·77	1945	41,200	20·46
1930	33,127	18·55	1946	46,693	22·99
1931	30,332	16·86	1947	47,366	23·06
1932	27,464	15·18	1948	46,099	22·06
1933	28,3 2	15·59	1949	46,873	21·92
1934	27,828	15·20	1950	49,830	22·61
1935	27,884	15·16	1951	50,553	22·28
1936	28,883	15·63	1952	53,738	23·02

MARRIAGES.

Marriages in Victoria in 1952 numbered 20,220.

Period.	Marriage Rate per 1,000 of Population.	Period.	Marriage Rate per 1,000 of Population.
1931	5·66	1942	12·02
1932	6·49	1943	9·26
1933	6·96	1944	8·94
1934	7·57	1945	8·20
1935	8·38	1946	10·54
1936	8·61	1947	9·95
1937	8·74	1948	9·59
1938	9·16	1949	9·38
1939	9·23	1950	9·22
1940	11·76	1951	9·31
1941	10·79	1952	8·66

The 1931 figure is the lowest recorded in the history of the State.

The marriage rate of 12·02 per 1,000 of population in 1942 was the highest on record.

INFANT MORTALITY.

(Deaths under One Year.)

Period.	Mortality Rate per 1,000 Births.			Period.	Mortality Rate per 1,000 Births.		
	Metropolitan Area.	Rest of State.	Victoria.		Metropolitan Area.	Rest of State.	Victoria.
1880–84	170·1	92·3	120·0	1936	44·1	40·7	42·3
1885–89	178·5	97·9	133·3	1937	37·1	36·3	36·7
1890–94	140·4	94·9	114·7	1938	34·1	34·3	34·2
1895–99	131·5	100·0	112·5	1939	32·3	38·9	35·6
1900–04	116·5	86·2	98·2	1940	39·7	39·2	39·5
1905–09	96·5	71·5	81·2	1941	34·6	38·1	36·2
1910–14	84·2	64·9	73·8	1942	43·8	38·9	41·6*
1915–19	76·2	55·4	66·1	1943	34·1	38·2	35·8
1920–24	71·6	58·6	65·3	1944	31·0	33·3	32·0
1925–29	58·3	50·2	54·3	1945	26·9	29·6	28·0
1930	50·7	42·3	46·5	1946	27·0	27·3	27·2
1931	48·0	41·1	44·7	1947	26·8	25·6	26·3
1932	47·7	38·9	43·0	1948	23·8	24·1	23·9
1933	40·9	40·0	40·4	1949	20·3	23·8	21·9
1934	48·2	41·4	44·6	1950	19·4	20·9	20·1
1935	43·0	39·5	41·2	1951	20·8	24·6	22·6
				1952	21·9	22·7	22.3

* The high infant mortality rate for 1942 can be ascribed to whooping cough. Details will be found in the report of the Maternal and Child Hygiene Branch.

DEATHS.

The number of deaths in 1952 was 23,322 and the death rate per 1,000 of population in 1951 was 10·33.

Period.	Average Annual Number of Deaths.	Rate per 1,000 of Mean Population.	Period.	Average Annual Number of Deaths.	Rate per 1,000 of Mean Population.
1870–79	12,133	15·50	1938	18,955	10·15
1880–89	14,510	15·13	1939	20,169	10·72
1890–99	16,618	14·21	1940	20,293	10·70
1900–09	15,194	12·38	1941	20,416*	10·54
1910–19	15,994	11·47	1942	21,973*	11·18
1920–29	16,524	10·03	1943	21,327*	10·76
1930	15,959	8·93	1944	20,502*	10·26
1931	17,033	9·47	1945	20,496*	10·18
1932	16,805	9·29	1946	21,534*	10·60
1933	17,456	9·59	1947	21,442*	10·44
1934	18,648	10·18	1948	21,825	10·44
1935	18,456	10·03	1949	21,991	10·28
1936	18,778	10·16	1950	22,341	10·14
1937	18,613	10·03	1951	23,446	10·33
			1952	23,322	9·99

* Excludes deaths of Defence personnel and of Internees and Prisoners of War from overseas.

MATERNAL DEATHS.

Period.	Average Annual Number of Deaths from—						Total.		Rate per 10,000 Live Births from—						Total.	
	Sepsis of Pregnancy, Childbirth and the Puerperium.	Toxaemias of Pregnancy and the Puerperium.	Haemorrhage of Pregnancy and Childbirth.	Abortion without mention of Sepsis or Toxaemia.	Abortion with Sepsis.	Other Complications of Pregnancy, Childbirth, and the Puerperium.	Including Criminal Abortion.	Excluding Criminal Abortion.	Sepsis of Pregnancy, Childbirth, and the Puerperium.	Toxaemias of Pregnancy and the Puerperium.	Haemorrhage of Pregnancy and Childbirth.	Abortion without mention of Sepsis or Toxaemia.	Abortion with Sepsis.	Other Complications of Pregnancy, Childbirth, and the Puerperium.	Including Criminal Abortion.	Excluding Criminal Abortion.
1930–34	160						160	133	54·37						54·37	45·20
1935–39	139						139	98	47·17						47·17	33·12
1940–44	120						120	80	33·14						33·14	22·18
1945–49	69						69	56	15·12						15·12	12·36
1950	4	15	3	3	8	10	43	35	0·80	3·01	0·60	0·60	1·61	2·01	8·63	7·02
1951	3	19	8	2	10	8	50	40	0·59	3·76	1·58	0·40	1·98	1·58	9·89	7·91
1952	4	13	4	3	6	7	37	32	0·74	2·42	0·74	0·56	1·12	1·30	6·88	5·95

NOTE.—The above table shows the causes of maternal deaths in 1950 according to the Sixth Revision of the International List of Causes of Death. Corresponding details are not available for years prior to 1950.

DEATH RATES FROM CERTAIN CAUSES.

Cause of Death.	Deaths per Million of Population.*									
	1908–12.	1943.	1944.	1945.	1946.	1947.	1948.	1950.	1951.	1952.
Heart diseases (including the conditions producing diseases of the heart)†	1,141	3,069	3,020	3,151	3,293	3,275	3,394	3,242	3,363	3,297
Cancer	838	1,378	1,331	1,366	1,396	1,416	1,385	1,456	1,397	1,423
Nephritis, acute and chronic	576	676	639	646	640	573	547	246	227	182
Pneumonia and broncho-pneumonia	834	697	576	558	613	555	594	383	427	314
Accidental violence	531	379	390	333	420	478	460	497	527	549
Tuberculosis (all forms)	1,037	375	377	363	350	330	307	196	179	148
Diabetes	107	29	208	208	213	213	217	167	156	176
Gastro-enteritis and colitis, except diarrhoea of newborn	..	..	..	..	..	..	..	48	70	41
Diphtheria	122	24	17	19	8	6	5	5	3	4

* Subject to revision.
† Increase due to form of certification of death having been changed.
‡ Death rates from certain causes according to the Sixth Revision of the International List of Causes of Death.

Note.—Owing to changes in classification, rates given for nephritis, pneumonia, and diabetes for 1950 and 1951 are not strictly comparable with those given for years prior to 1950.

Note.—Rates given for 1950 and subsequent years are not strictly comparable with those given for earlier years owing to the introduction of the Sixth Revision (1948) of the International List of Causes of Death.

By Authority: W. M. Houston, Government Printer, Melbourne.

BUREAU OF HYGIENE & TROPICAL DISEASES
5 NOV 1954

AND TROPICAL MEDICINE
LIBRARY
1954